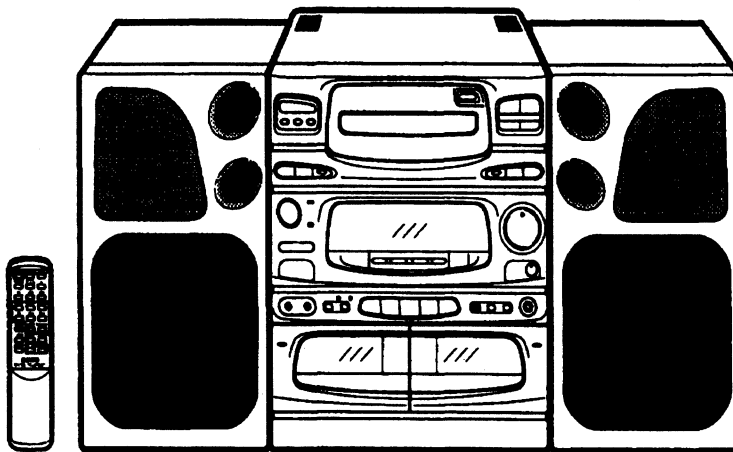


Service Manual

Mini Component System

DC-F180 (XE)
DC-F180U (UK)



CONTENTS

PRODUCT CODE No.
129 485 05 (XE)
129 486 04 (UK)

SPECIFICATIONS	1	TUNER ADJUSTMENTS	12
LASER BEAM SAFETY PRECAUTIONS .	1	EXPLODED VIEW	13
WHAT TO DO IF	2	PARTS LIST	14
REMOVAL AND INSTALLATION	2	SCHEMATIC DIAGRAM	26
CD PLAYER MECHANISM ADJUSTMENTS	4	WIRING DIAGRAM	28
CD PLAYER ADJUSTMENTS	7	IC BLOCK DIAGRAM &	
TAPE DECK ADJUSTMENTS	9	DESCRIPTION	46
AMPLIFIER ADJUSTMENTS	11	IC & TRANSISTOR VOLTAGES	54

This service manual consists of "DC-F180U" (Main unit),
"RB-D17PV" (Remote control) and "SX-F180L & SX-F180R" (Speaker system).

SPECIFICATIONS

Note: The below mentioned specifications are mainly based on the IHF measurements standard.
They can therefore not directly be compared with specifications based on the DIN standard or other standards.

TUNER SECTION

Frequency range FM : 87.5 - 108.0 MHz
MW : 522 - 1,611 kHz
LW : 144 - 288 kHz

CASSETTE DECK SECTION

Track system 4 track, 2-channel stereo
Frequency response . . 50 Hz - 15,000 Hz (CrO2 type)
50 Hz - 14,000 Hz (Normal type)
Signal to noise ratio . . 60 dB (Dolby NR ON)
Wow & Flutter 0.12 % (WRMS)
Tape speed 4.75 cm/sec
Fast forward and
rewind time Approx. 110 sec. (C-60)

CD PLAYER SECTION

Channels 2-channel stereo
Sampling frequency . . 44.1 kHz
Pick-up Optical 3-beam semiconductor laser
Laser output 0.6 mW (Continuous wave max.)
Wave length 790 nm
Frequency response . . 20 Hz - 20,000 Hz
Wow & Flutter Below measurable limits

AMPLIFIER SECTION

Output power 30 W x 2 (at 6 ohms, 10% distortion)
Sound preset Four electronic presets
Inputs (VIDEO/PHONO) 400 mV (50k ohms),
2.5 mV (50k ohms)
Outputs SPEAKER : 6 ohms
SURROUND SPEAKER : 16 ohms
PHONES : 8 - 32 ohms

GENERAL

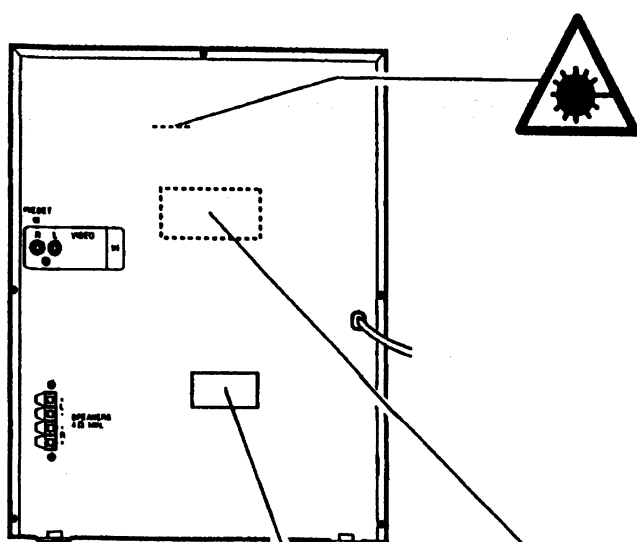
Power requirements . . AC : 230 V, 50 Hz
Power consumption . . 75 W
Dimensions (WxHxD) . . Approx. 270 x 330 x 302 mm
Weight Approx. 7.1 kg

SPEAKER SYSTEMS

Type 3 way bass reflex
Unit used Woofer: 13 cm cone type
Mid range : 5 cm cone type
Tweeter : piezoelectric
Maximum power-handling capacity 60 W (peak)
Nominal impedance . . 6 ohms
Dimensions (WxHxD) . . Approx. 180 x 330 x 245 mm
Weight Approx. 3.1 kg (per speaker)
Specifications subject to change without notice.

LASER BEAM SAFETY PRECAUTIONS

- Pick-up that emits a laser beam is used in this CD player.



CAUTION :

USE OF CONTROLS OR ADJUSTMENTS
OR PERFORMANCE OF PROCEDURES
OTHER THAN THOSE SPECIFIED
HEREIN MAY RESULT IN HAZARDOUS
RADIATION EXPOSURE

LASER OUTPUT 0.6 mW Max. (CW)
WAVELENGTH 790 nm

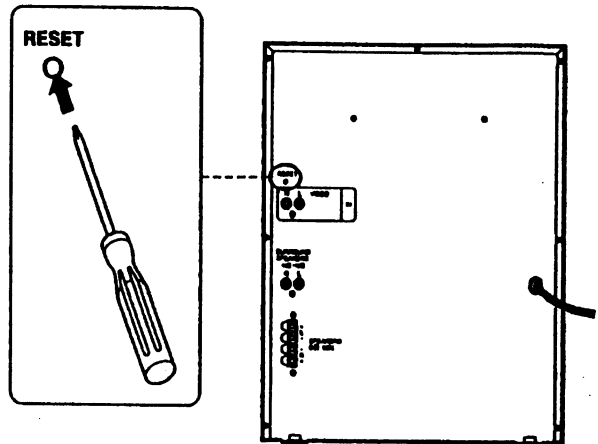
CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

CAUTION - INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL - USYNLIG LASER STRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION, UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARNING - OSYNLIG LASER STRÅLING NÅR DENNA DEL ÄR ÖPPNAD OCH SPÄRR ÄR URKOPPLAD. STRÅLEN ÄR FARLIG.
VORSICHT - UNSICHTBARE LASERSTRAHLUNG TRITT AUS, WENN DECKEL GEÖFFNET UND WENN SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT IST. NICHT, DEM STRAHL AUSSETZEN.
VARO - AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

WHAT TO DO IF

If the operation of the unit or display is not normal, or you wish to clear the contents of the memory.

1. Disconnect the power cord's plug from the electrical outlet.
2. Press the **RESET** button for at least 20 seconds.
3. Connect the power cord.
4. Press the **POWER** button to turn the power on.



REMOVAL AND INSTALLATION

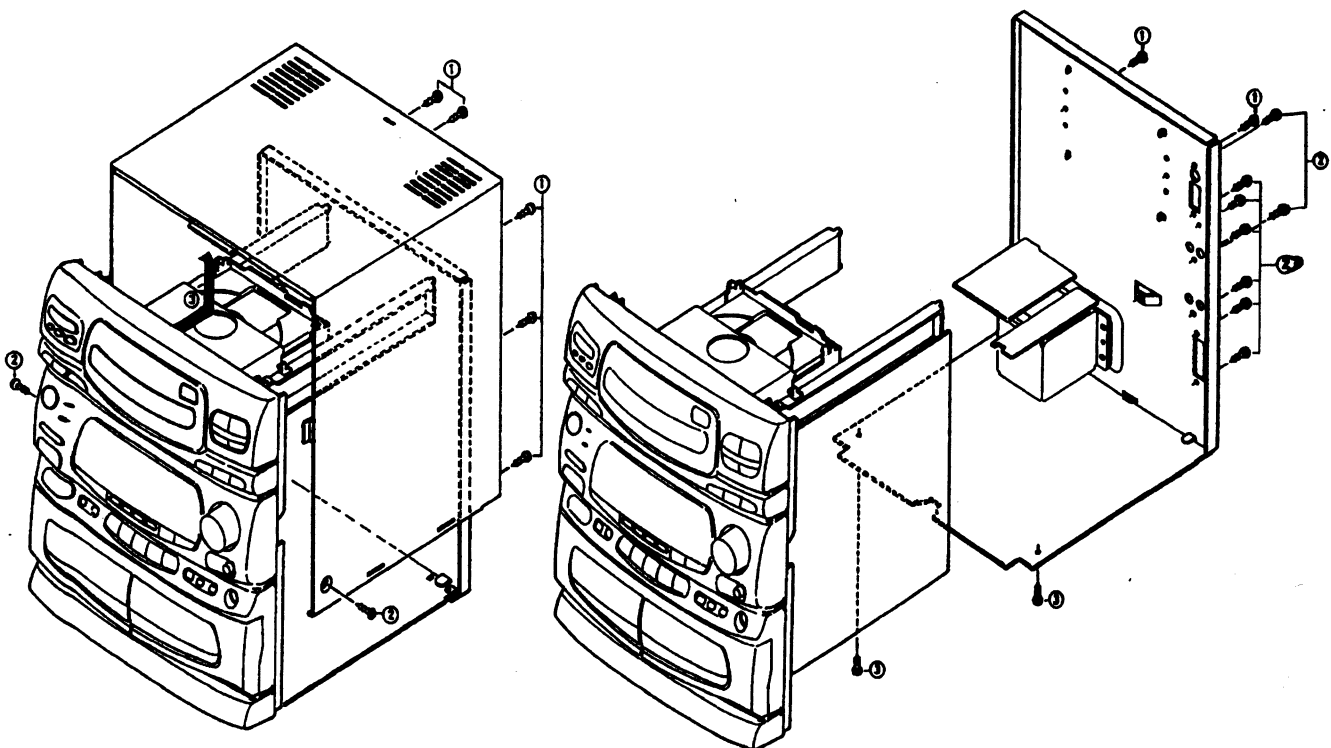
- Disconnect the power cord's plug from the electrical outlet.
- All wiring should be returned to the original position after work is completed.
- First have ready many the new FIXERS (614 129 2496) for replacement.
- Arrange the lead wires so that they are not near the heat sink.

b. REAR PANEL

- (1) Remove the 2 CD mechanism mounting screws. (①)
- (2) Remove the 8 rear cabinet mounting screws. (②)
- (3) Remove the 2 bottom cabinet mounting screws. (③)

a. CABINET

- (1) Remove the 5 rear panel mounting screws. (①)
- (2) Remove the 2 cabinet mounting screws. (②)



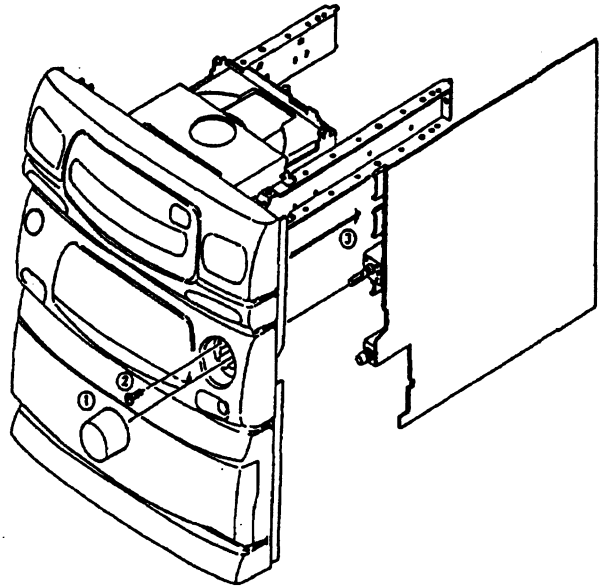
REMOVAL AND INSTALLATION

c. TUNER/AMP./TAPE DECK P.W.BOARD

- (1) Remove the VOLUME knob. (①)
- (2) Remove the volume mounting screw. (②)
- (3) Remove the TUNER/AMP./TAPE DECK P.W.Board. (③)

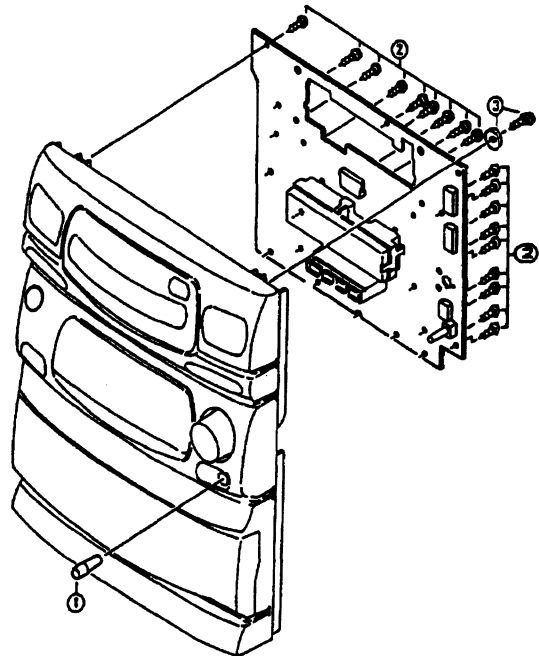
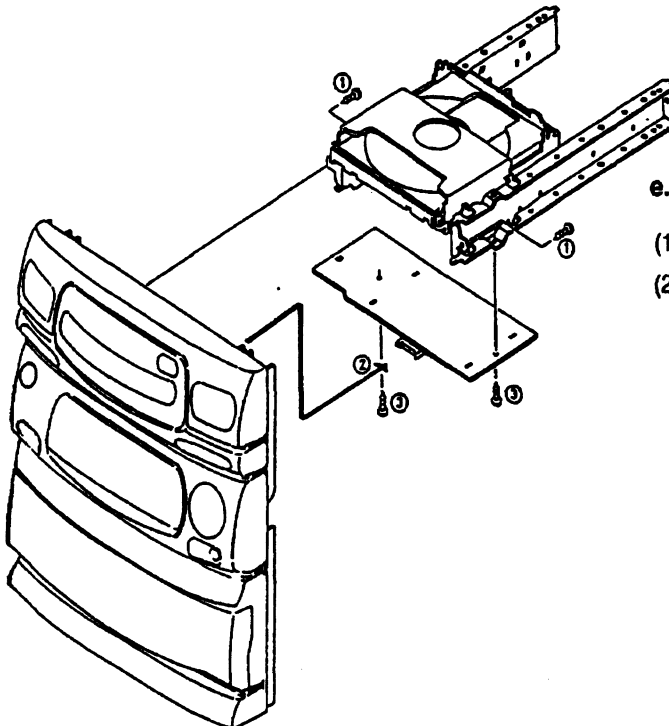
d. CD MECHANISM BLOCK

- (1) Removal the CD mechanism mounting screws. (①)
- (2) Remove the CD mechanism block.(②)
- (3) Removal the CD P.W.Board mounting screws. (③)



e. FRONT P.W.BOARD

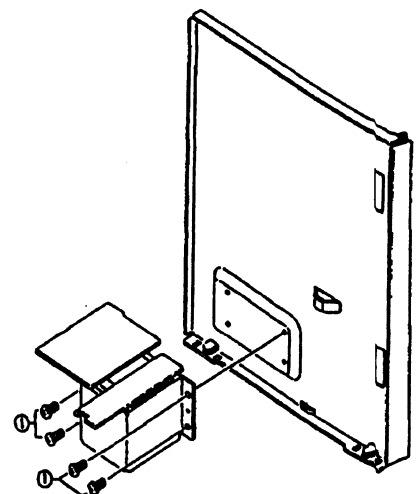
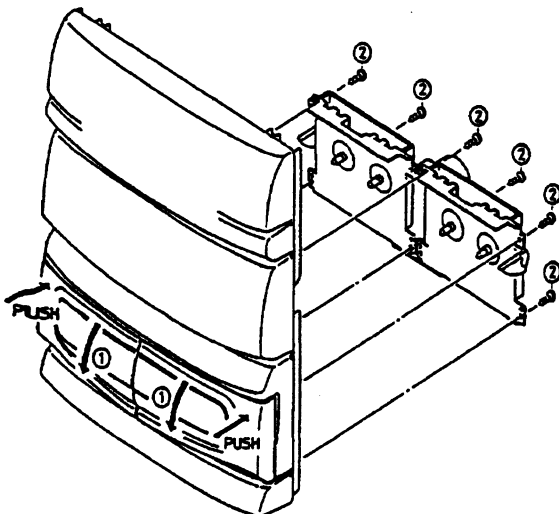
- (1) Removal the BALANCE, ECHO and MIC knobs. (①)
- (2) Removal the FRONT P.W.Board mounting screws. (②)



f. TAPE MECHANISM

- (1) Push the cassette Lid.
- (2) Open the cassette compartment lids. (①)
- (3) Removal the tape mechanism mounting screws. (②)

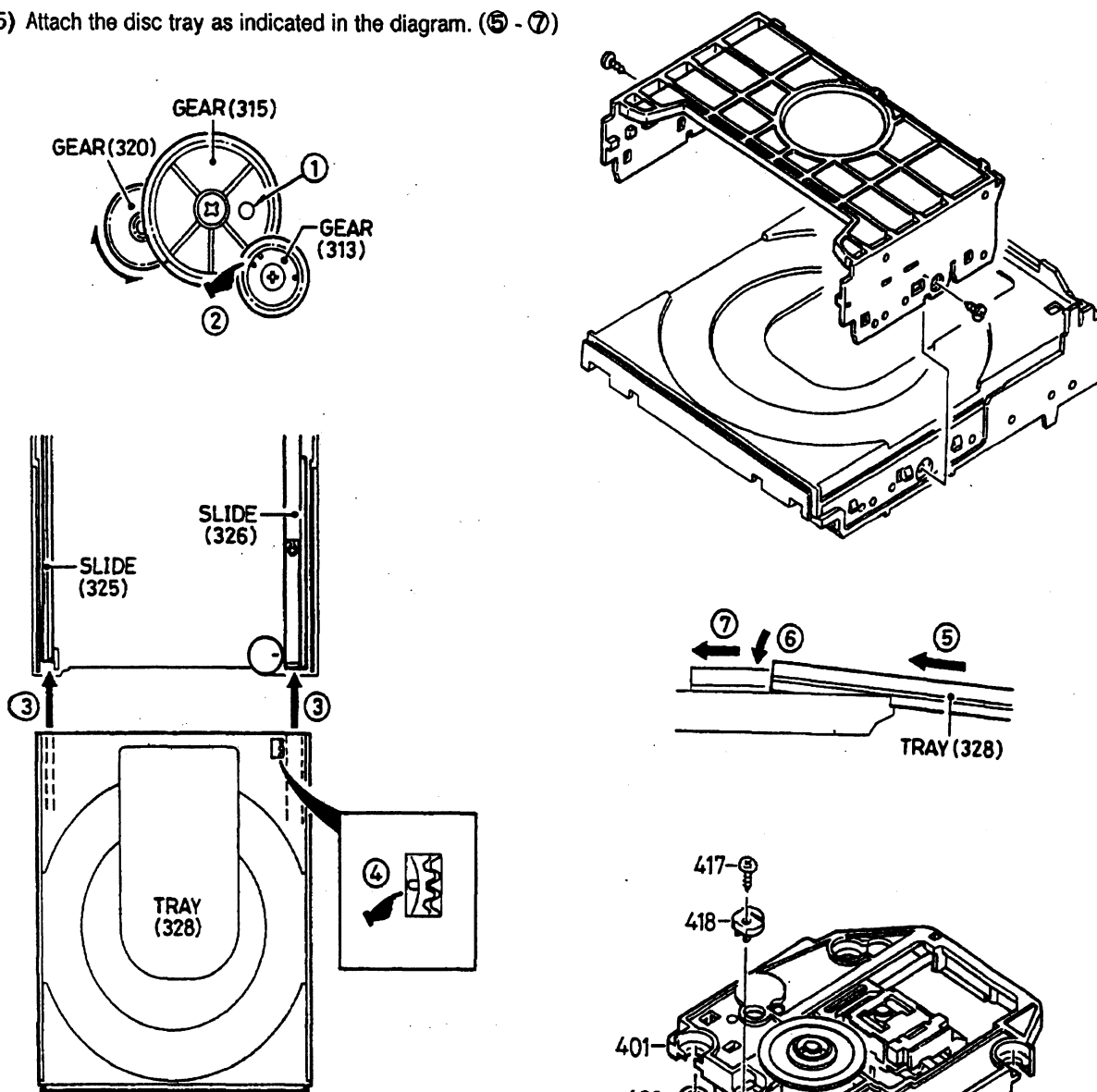
g. POWER TRANSFORMER



CD PLAYER MECHANISM ADJUSTMENTS

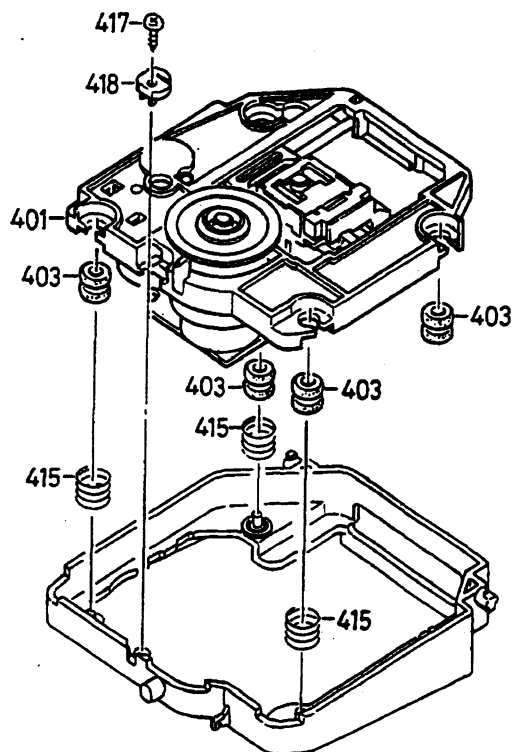
a. INSTALLING THE DISC TRAY

- (1) Join together the gear (315) and chassis holes. (①)
- (2) Attach the gear (313) rib as indicated in the diagram. (②)
- (3) Fit the disc tray into the grooves of slide (325) and slide (326). (③)
- (4) Fit together the gear rib of the disc tray and the teeth in the center. (④)
- (5) Attach the disc tray as indicated in the diagram. (⑤ - ⑦)



b. DISASSEMBLY OF THE CD PLAYER MECHANISM

(a) CD Mechanism



CD PLAYER MECHANISM ADJUSTMENTS

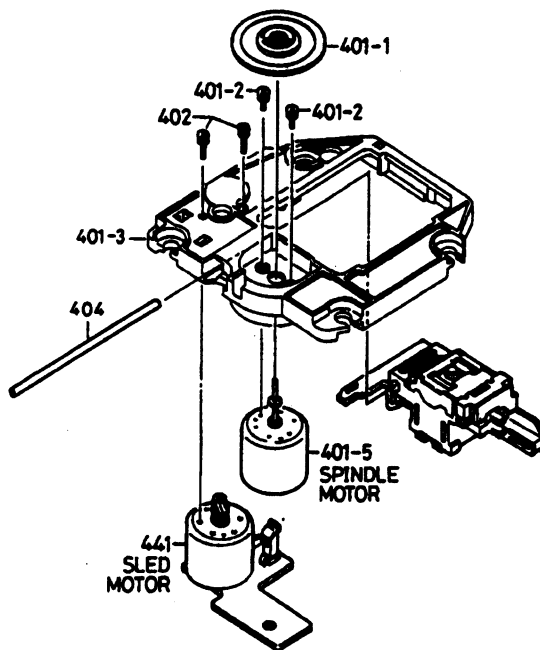
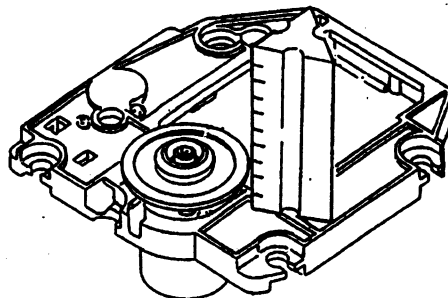
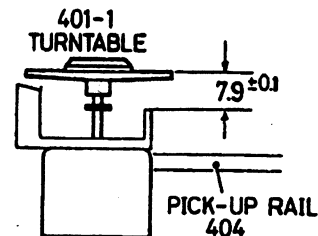
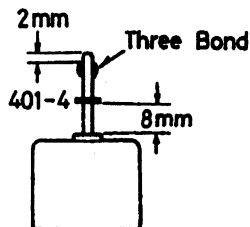
(b) Replacement of the spindle motor

- First, prepare the new turntable (401-1) and new special washer (401-4) for replacement.

The removed turntable will be deformed by the heat of the soldering iron, and cannot be reused.

- Prepare dial-type calipers.

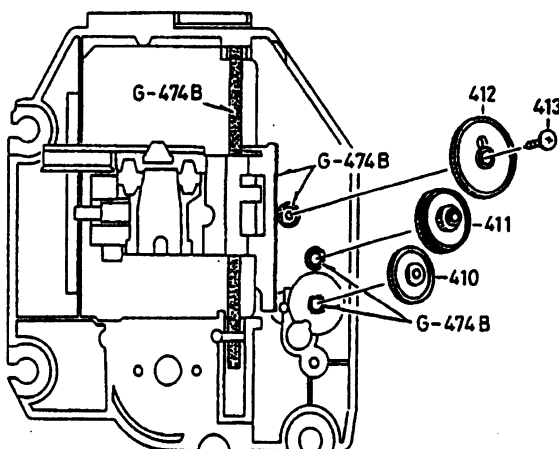
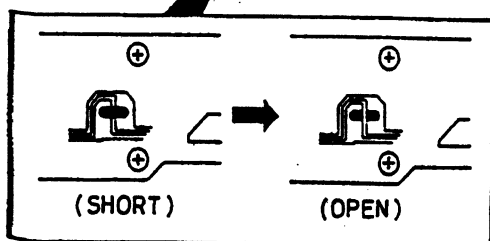
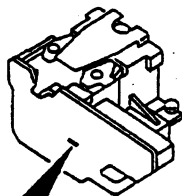
- The attached bonding material can be dissolved by using a 60W soldering iron to heat the shaft at the upper part of the turntable for about one minute.
 - The turntable can then be removed from the shaft by very carefully applying force upward at the center of the lower surface of the turntable.
 - Remove the two screws (401-2) and remove the spindle motor (401-5).
 - Attach the special washer (401-4) to the spindle motor.
 - Clean the spindle motor's shaft.
- To clean them, use a soft cloth soaked in isopropyl alcohol.
- Apply a small amount of a mixture of the "Three Bond 2001" and "2015F" bonding materials to the motor's shaft.
 - Install the turntable as shown in the figure.
 - Secure the turntable by pressing gently.
- Be sure to wipe away (by using a piece of cloth, or similar material) any bonding material coming out of the hole.



(BE SURE AT THIS TIME,
NOT TO TOUCH ANY OTHER PART.)

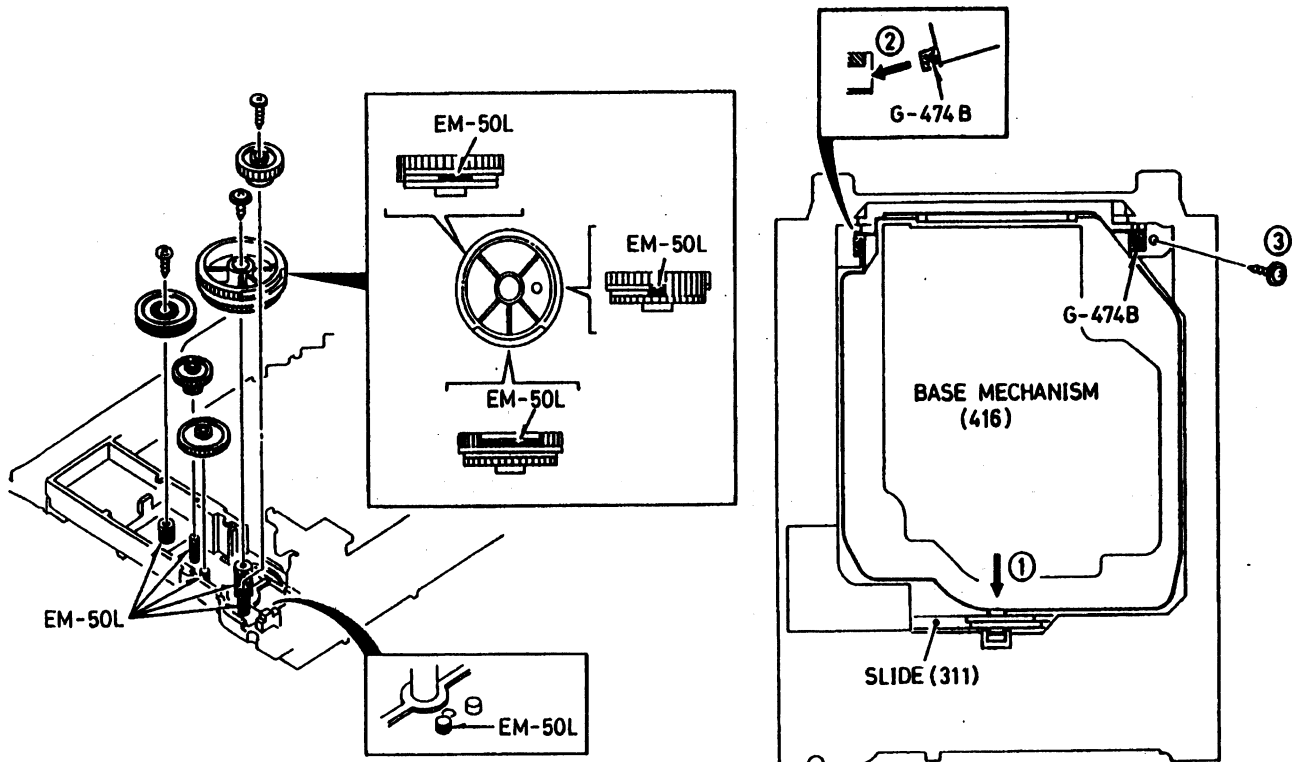
(c) Replacing the pick-up

- Insert the pick-up rail (404) into the base chassis. (401-3)
- If the latch of the base chassis (401-3) are missing when the pick-up rails have been installed, first wipe the tips of the rail with alcohol.
- After the pick-up has been replaced, apply grease (FLOIL G-474B) to the sections.
- The pick-up P.W.Board pattern is "shorted", as shown in the figure, so that the new pick-up will not be susceptible to the effects of static.
- Set the pattern to "open" after the pick-up has been replaced.



CD PLAYER MECHANISM ADJUSTMENTS

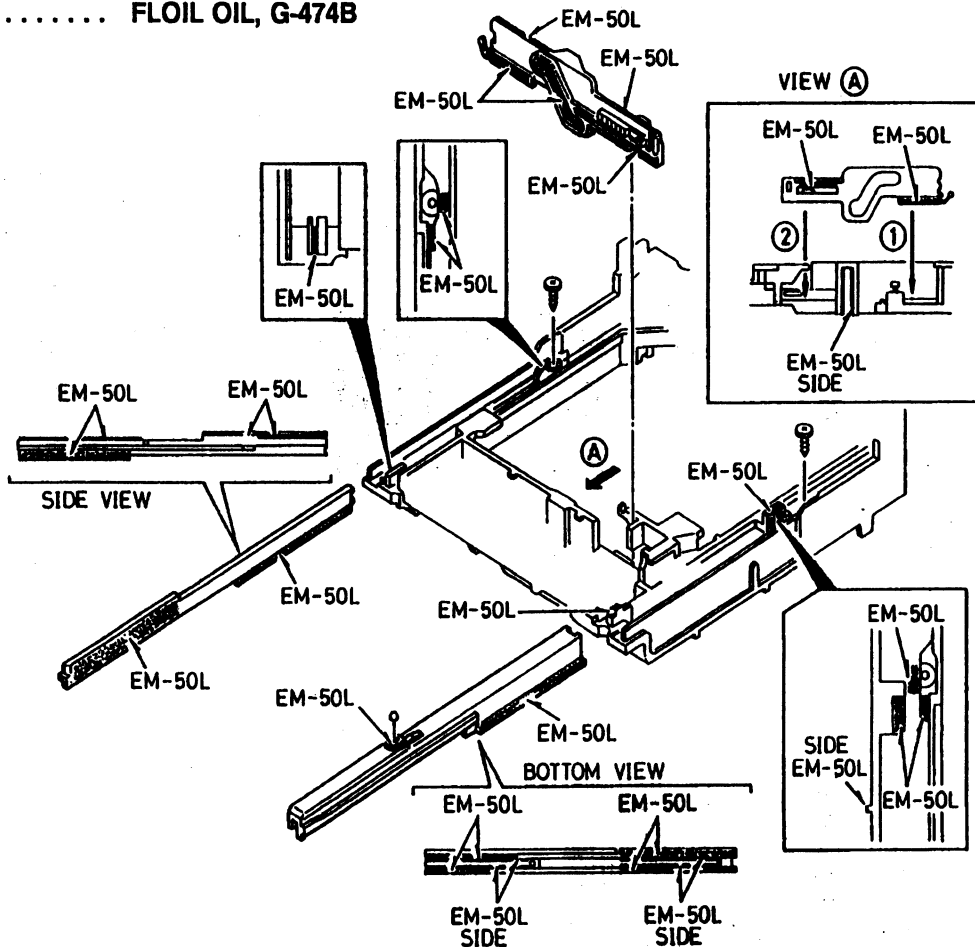
(d) Replacement and lubrication of the CD mechanism



Note :

EM-50 MOLYKOTE, EM-50L

G-474B FLOIL OIL, G-474B



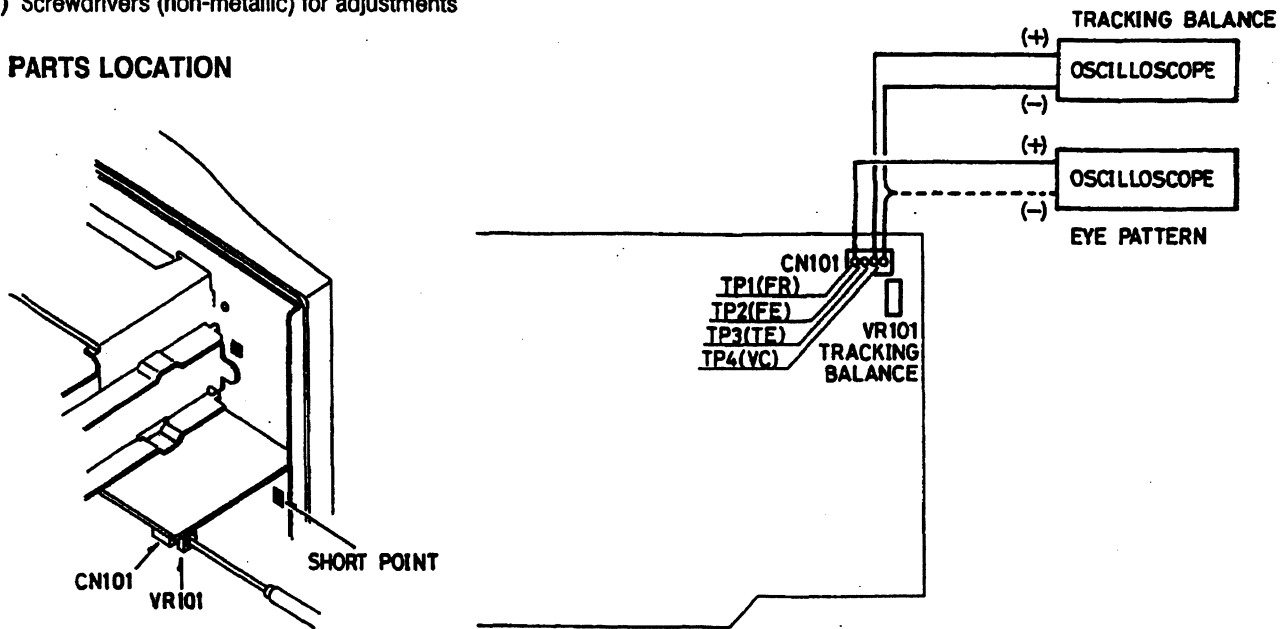
CD PLAYER ADJUSTMENTS

a. PREPARATIONS

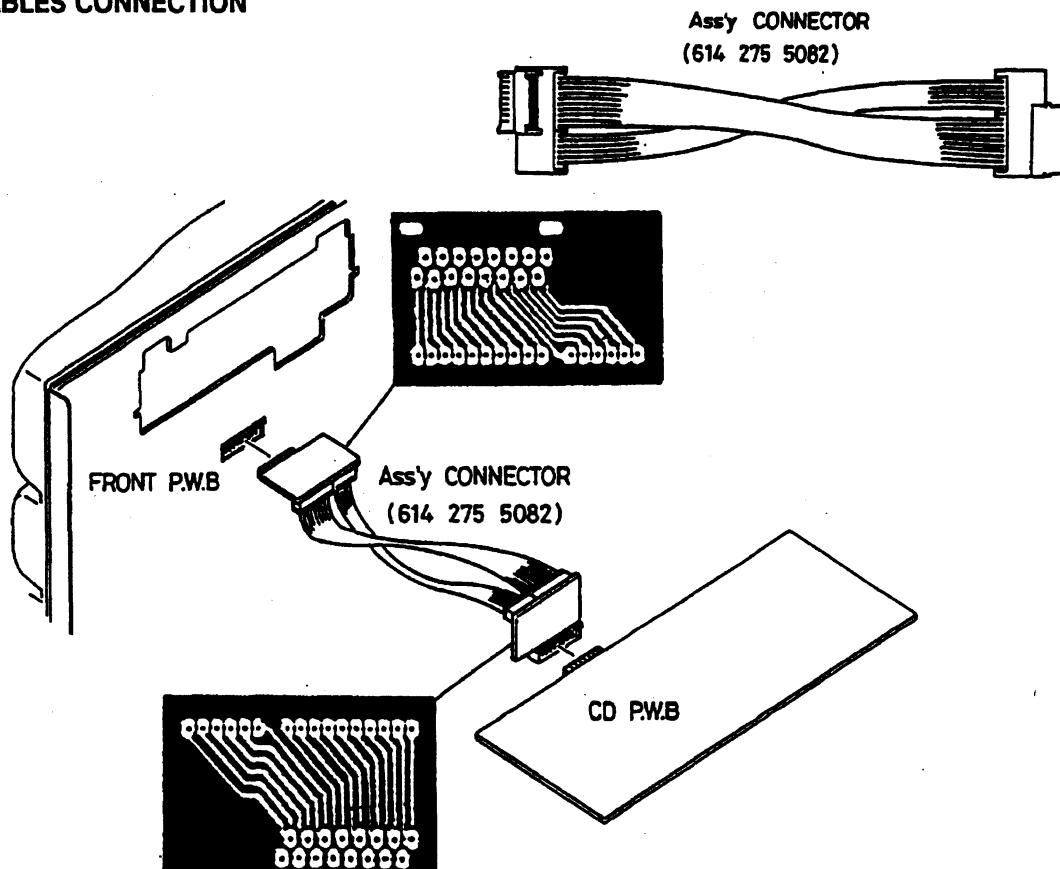
(a) Measuring Instruments, tools and filter

- (1) Test disc. : YEDS 18 (SONY) or etc.
- (2) Oscilloscope : SS5711 (10 MHz or dual-phenomenon)
or Memoryscope : DSS6521 (Storagescope)
- (3) Screwdrivers (non-metallic) for adjustments

b. PARTS LOCATION



c. TEST CABLES CONNECTION

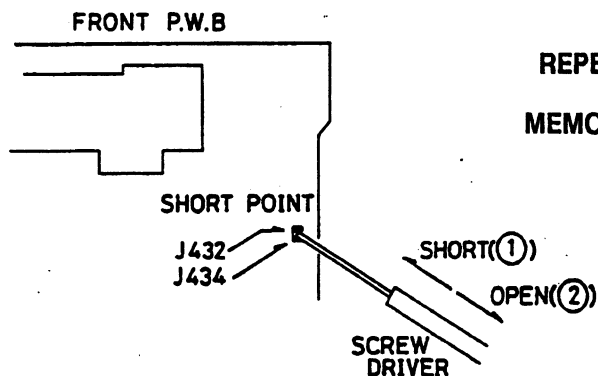


CD PLAYER ADJUSTMENTS

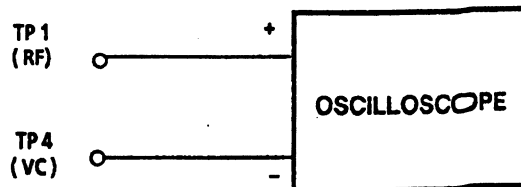
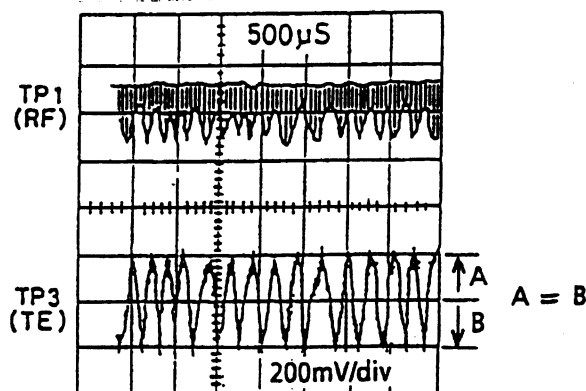
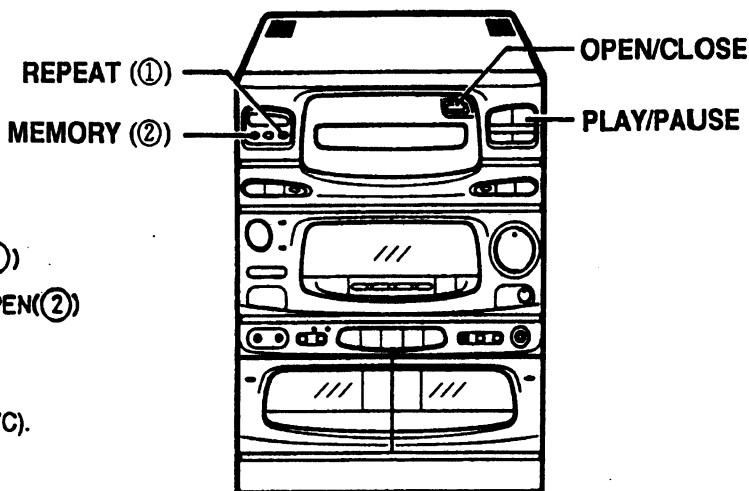
d. ADJUSTMENTS

Adjustment Item	Measuring Instrument	Input connection	Output connection	Adjustment location	Adjustment value
(a) Tracking balance	Oscilloscope	—	TP 3 : TE TP 4 : VC	VR101	Waveform symmetry A = B
(b) Checking the "eye" pattern	Oscilloscope	—	TP 1 : RF TP 4 : VC	—	Check be sure that the "eye" pattern is at the center of the waveform and that the diamond shape is clearly defined

(a) Tracking balance adjustment

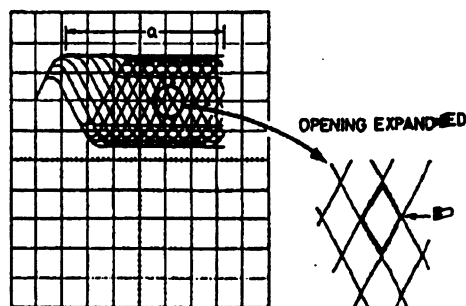


- (1) Connect an oscilloscope to TP3 (TE) and TP4 (VC).
 - (2) Set the test disc.
 - (3) While creating a short-circuit across J432 and J434 on the FRONT P.W.Board with a screw driver, press the REPEAT (①) switch. Within one second, press the MEMORY switch. (②) (Service mode : TRACKING BALANCE)
 - (4) PLAY / PAUSE switch push "ON".
 - (5) Adjust VR101 so that the oscilloscope's waveform is symmetrical, as shown in the illustration.
 - (6) To cancel service mode, disconnect the power cord's plug from the electrical outlet.
- Note : When pressing the MEMORY (②) switch, the screw driver to break the circuit between J432 and J434.



(b) Checking the "eye" pattern

- (1) Switch "ON" the POWER.
- (2) Connect an oscilloscope to TP1 (RF) and TP4 (VC).
- (3) Load the test disc.
- (4) PLAY switch push ON.
- (5) Check to be sure that the "eye" pattern is at the center of waveform and that the diamond shape is clearly defined.
- (6) Press the STOP button.
- (7) Switch "OFF" the POWER.



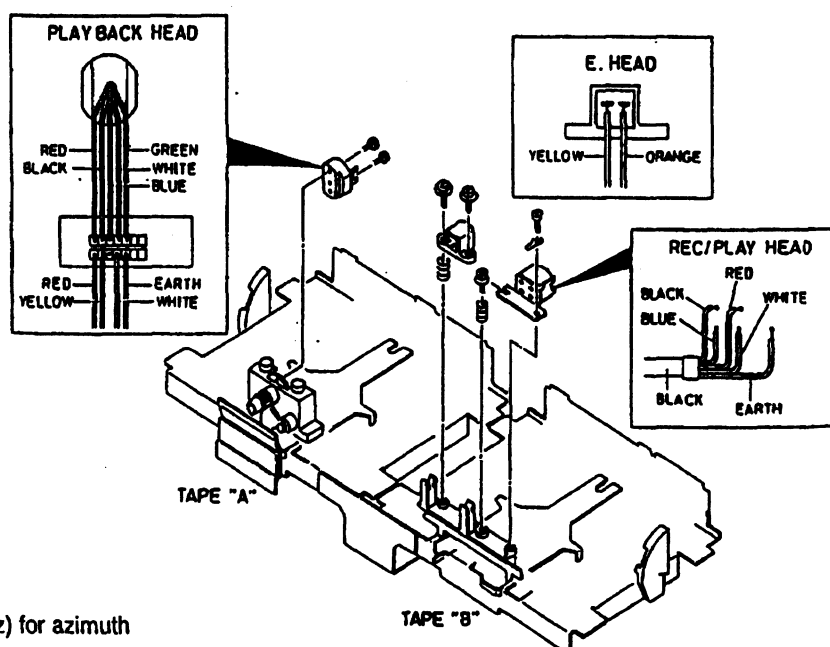
TAPE DECK ADJUSTMENTS

Adjustment Item	Test Tape	Measuring Instrument	Output connection	Adjust location	Adjust value	Note
(a) HEAD AZIMUTH TAPE "B"	VTT738 etc. (10 kHz)	AC-voltmeter	SPEAKER TERMINAL	HEAD AZIMUTH SCREW (FWD)	Max.	—
(b) HEAD AZIMUTH TAPE "A"	VTT738 etc. (10 kHz)	AC-voltmeter	SPEAKER TERMINAL	HEAD AZIMUTH SCREW (FWD / REVERSE)	Max.	—
(c) MOTOR SPEED (NORMAL)	MTT-111 (3,000 Hz)	FREQUENCY COUNTER	SPEAKER TERMINAL	VR311	3,000 Hz	JUMPER "OPEN"
(d) MOTOR SPEED (HIGH)	TCW-211 (1,500 Hz)	FREQUENCY COUNTER	SPEAKER TERMINAL	Checking	3,000 Hz	JUMPER "SHORT"

a. HEAD REPLACEMENT AND AZIMUTH ADJUSTMENT

(a) Head replacement

- (1) After replacement, demagnetize the heads by using a degausser.
- (2) Be sure to clean the heads before attempting to make any adjustments.
- (3) Be sure both channels (1 and 2) are the same level (Using a dual-channel oscilloscope).
- (4) All wiring should be returned to the original position after work is completed.



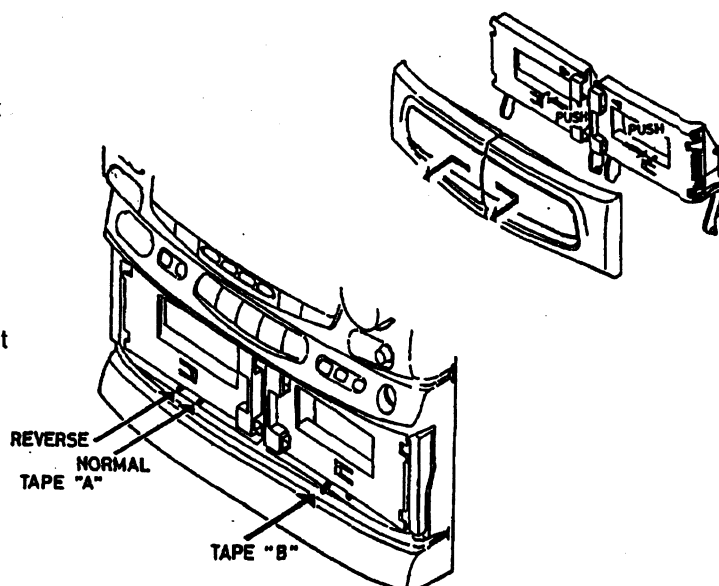
(b) Head azimuth

• TAPE "A"

- (1) Load a test tape (VTT-738, etc.: 10 kHz) for azimuth adjustment.
- (2) Press the Forward PLAY button (normal playback).
- (3) Use a flat-tip (-) screwdriver to turn the screw for normal azimuth adjustment so that the left and right outputs are maximized at the same phase during normal playback.
- (4) Press the Tape "A" Reverse PLAY button.
- (5) Play the tape in the reverse mode.
- (6) Use a flat-to- (-) screwdriver to turn the screw for reverse azimuth adjustment so that the left and right outputs are maximized at the same phase during reverse playback.
- (7) Press the STOP button.

• TAPE "B"

- (1) Load a test tape for azimuth adjustment.
- (2) Press the PLAY button.
- (3) Azimuth screw adjustment.
- (4) Press the STOP button.

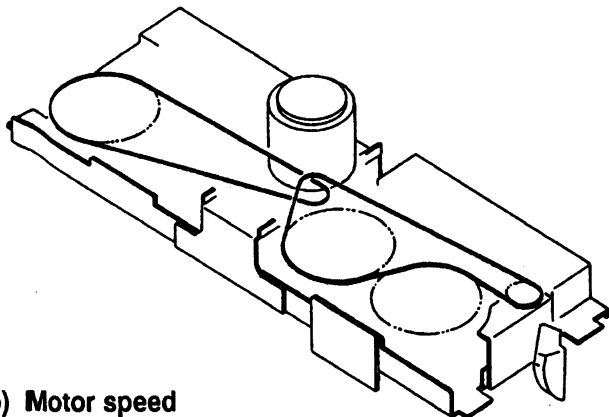


- After making the adjustment, secure the azimuth adjustment screw by applying screw lock (TB-1401B).

TAPE DECK ADJUSTMENTS

b. MOTOR REPLACEMENT AND SPEED ADJUSTMENT

(a) Motor replacement



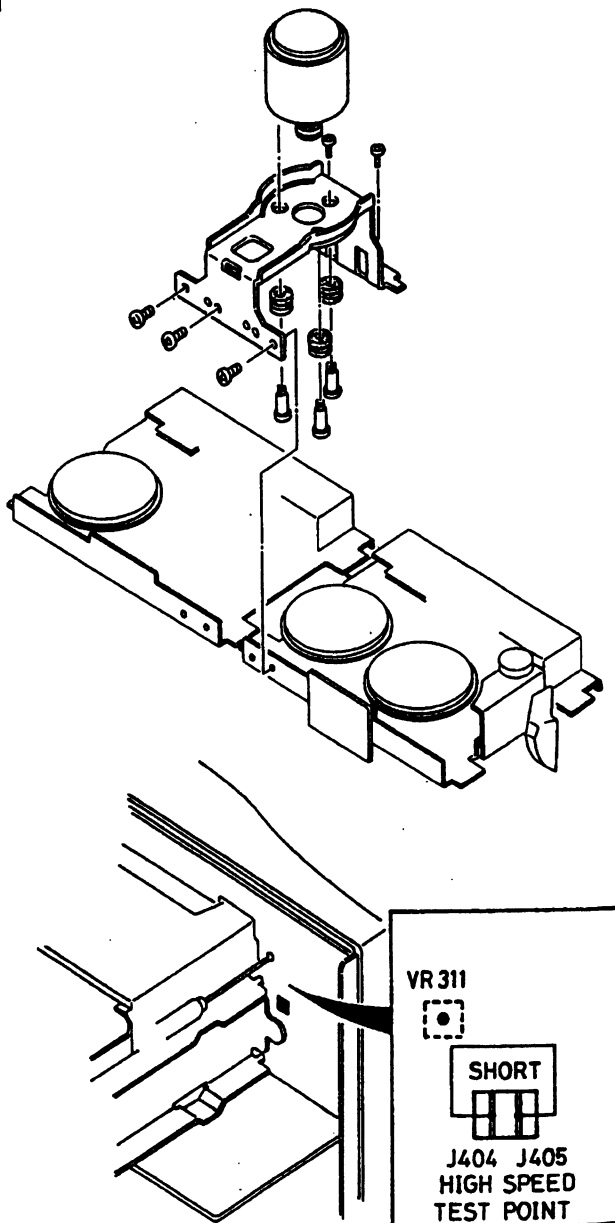
(b) Motor speed

• NORMAL SPEED

- (1) Insert the test tape (MTT-111, etc. 3,000 Hz) into Tape "A".
- (2) Press PLAY button.
- (3) Adjust VR311 so that the frequency counter shows a reading of 3,000Hz.
- (4) Press STOP button.

• HIGH SPEED

- (1) Insert the test tape (TCW-211, etc. 1,500 Hz optional) into Tape "B".
- (2) Press PLAY button.
- (3) Set to the high-speed condition.
- (4) Short-circuit test points jumper (J404 & J405).
- (5) Checking the frequency counter reading is 3,000 Hz.
- (6) Press STOP button.
- (7) After the completion of the adjustment, remove the short-circuit between jumper (J404 & J405).



c. CHECKING THE MECHANISM TORQUES

- Clean the head, capstan and pinch roller before making any measurement.
- Check during both normal and reverse playback.

TAPE "A"

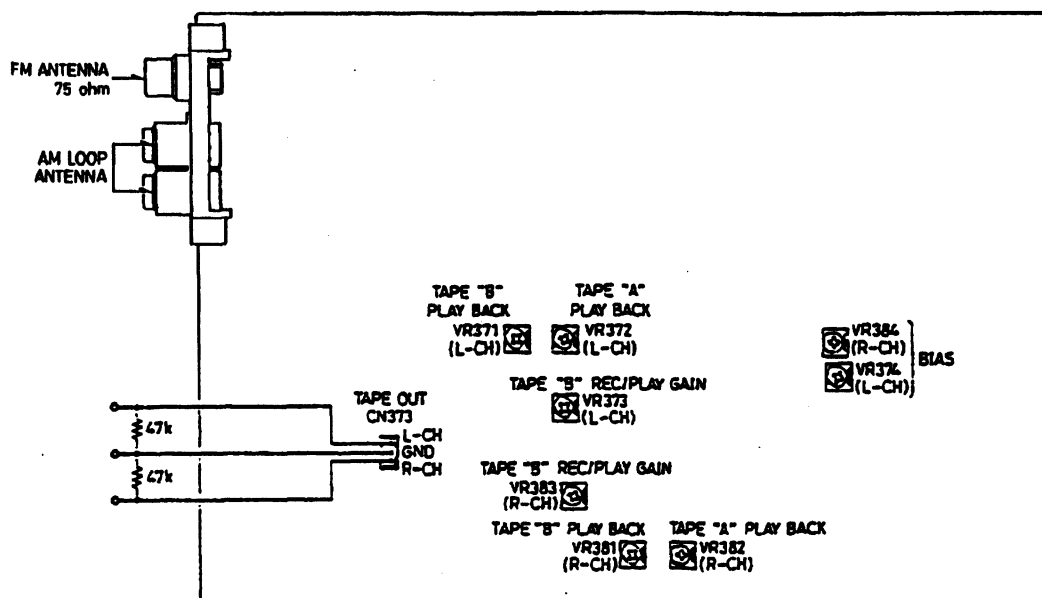
Measurement	Take-up torque	Back tension	Tape tension
Cassette for measurement	PLAY: TW-2111A (FWD) PLAY: TW-2121A (REV) F.FWD/REW: TW-2231	PLAY: TW-2111A (FWD) PLAY: TW-2121A (REV)	Drive-power cassette TW-2412 (FWD) TW-2422 (REV)
PLAY	30 ~ 60 gr.cm	2.0 ~ 4.5 gr.cm	100 gr or more
F.FWD / REW	55 ~ 120 gr.cm	—	—

TAPE "B"

Measurement	Take-up torque	Back tension	Tape tension
Cassette for measurement	PLAY: TW-2111A F.FWD/REW: TW-2231	PLAY: TW-2111A	Drive-power cassette TW-2412
PLAY	30 ~ 60 gr.cm	2.0 ~ 4.5 gr.cm	100 gr or more
F.FWD / REW	55 ~ 120 gr.cm	—	—

AMPLIFIER ADJUSTMENTS

- Make the following adjustments after first cleaning the head assembly and checking the adjustment of the head azimuth.



Adjustment Item	Test Tape	DOLBY NR SW.	Measuring Instrument	Input Connection	Output connection	Adjust location	Adjust value
(a) Playback output	TCC-130 (DOLBY TAPE)	OFF	AC-Voltmeter	—	TAPE OUT	(TAPE "A") VR372 VR382 (TAPE "B") VR371 VR381	580 mV
(b) Recording / Playback gain	AC-224 (NORMAL)	OFF	AC-Voltmeter AF-Oscillator	VIDEO - 11 dB, 1 kHz	TAPE OUT	(TAPE "B") VR373 VR383	400 mV
(c) Recording / Playback frequency response	AC-224 (NORMAL)	ON	AC-Voltmeter AF-Oscillator	VIDEO - 31 dB, 1 kHz, 10 kHz	TAPE OUT	(TAPE "B") VR374 VR384	0 ± 1 dB at 1 kHz and 10 kHz

a. ADJUSTMENTS

(a) Playback output adjustment

Dolby NR switch : OFF

(1) TAPE "A"

Play the test tape and adjust VR372 (L-CH) and VR382 (R-CH) so that playback output becomes 580 mV.

(2) TAPE "B"

Play the test tape and adjust VR371 (L-CH) and VR381 (R-CH) so that playback output becomes 580 mV.

(b) Recording / Playback frequency gain adjustment

Input signal : - 11 dB, 1 kHz

Tape to be used : NORMAL (AC-224, etc.)

- Introduce input signals to the VIDEO terminals, and, with the unit in the REC. PAUSE mode, adjustment input level for 400 mV out.
- Record the input signal.
- Press the REWIND button and rewind tape to the beginning of the recording just made.
- Press the PLAY button.

- Adjust VR373 (L-CH) and VR383 (R-CH) so that the recording and playback output level differences become ± 1 dB.

- Repeat steps (1) to (5).

(c) Recording / Playback response adjustment

Input signal : - 31 dB, 1 kHz, 10 kHz

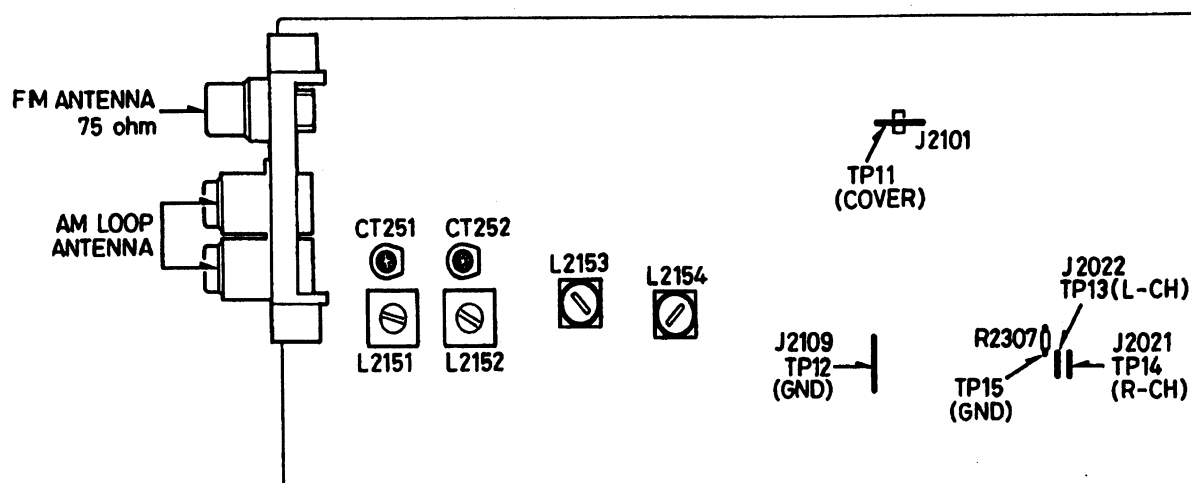
Tape to be used : NORMAL (AC-224, etc.)

Dolby NR switch : ON

- Introduce input signals to the VIDEO terminals.
- With the unit in the REC. mode.
Record these input signals (1 kHz → 10 kHz → 1 kHz → 10 kHz).
- Press the REWIND button and rewind tape to the beginning of the recording just made.
- Press the PLAY button.
- Adjust VR374 (L-CH) and VR384 (R-CH) so that the 10 kHz and 1 kHz and output level differences become ± 1 dB.
- Repeat steps (1) to (5).

TUNER ADJUSTMENTS

- Use a plastic screw driver for adjustments.
- Speaker impedance : 6 ohm
- Standard Output : 500 mW
- FM MODE switch : STEREO
- TUNING FM : 87.5 - 108.0 MHz (50 kHz step) MW : 522 - 1,611 kHz (9 kHz step) LW : 144 - 288 kHz (9 kHz step)



SG RF Level : 75 ohm Open Voltage $\text{dB}_{\mu\text{V}}$

Antenna : 75 ohm unbalanced , Modulation : 1 kHz,

Dev. : ± 75 kHz (MONO) ± 40 kHz (STEREO) ± 6.75 kHz (PILOT)

a. ADJUSTMENTS OF FM BAND

Step	Adjusting Circuit	Connections		SG Frequency	Position of tuning dial	Adjustment	VTVM Oscilloscope or DC voltmeter
		Input	Output				
1	Tuning coverage	—	Connect to Digital DC voltmeter TP 11 (H), TP 12 (G)	87.5 MHz	Low end	—	(more than 0.9V)
				108.0 MHz	High end	—	(less than 9.0V)
2	Tracking	FM Antenna (SG = $8\text{dB}_{\mu\text{V}}$)	Connect to VTVM TP 13 (H) or TP 14 (H), TP 15 (G)	90.0 MHz	90.0 MHz	—	Max.
				106.0 MHz	106.0 MHz	—	

b. ADJUSTMENTS OF MW BAND

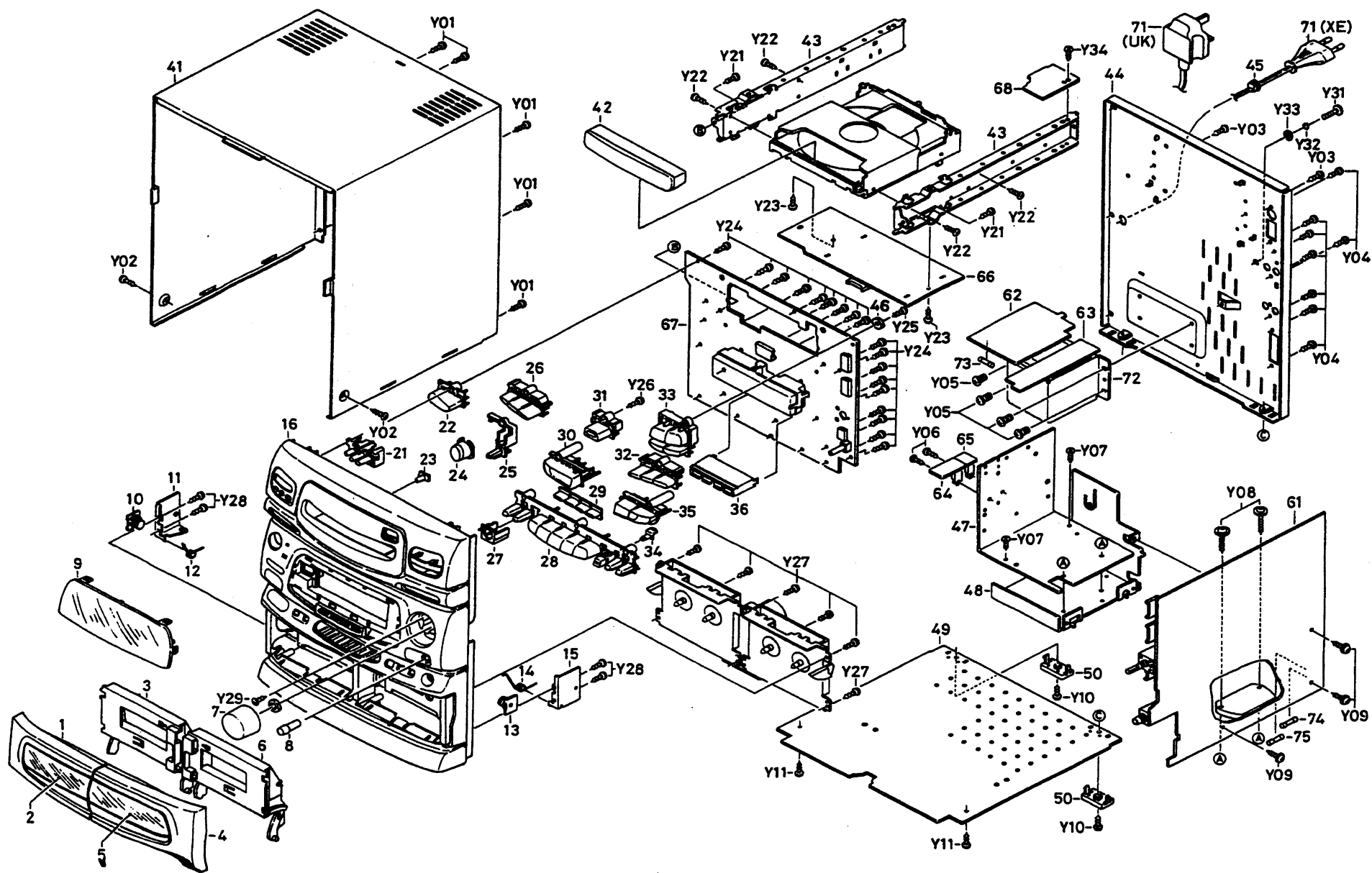
SG Modulation : 1,000 Hz, 30% IRE Loop Antenna

Step	Adjusting Circuit	Connections		SG Frequency	Position of tuning dial	Adjustment	VTVM Oscilloscope or DC voltmeter
		Input	Output				
1	Tuning coverage	—	Connect to Digital DC voltmeter TP11 (H), TP12 (G)	522 kHz	Low end	L2153	$1.1 \pm 0.05 \text{ V}$
				1611 kHz	High end	—	(less than 9.0V)
2	Tracking	Connect AM SG to Test Loop (SG = $80\text{dB}_{\mu\text{V}}$)	Connect VTVM TP13 (H) or TP14 (H), TP15 (G)	603 kHz	603 kHz	L2152	Max.
				1404 kHz	1404 kHz	CT252	

c. ADJUSTMENTS OF LW BAND

Step	Adjusting Circuit	Connections		SG Frequency	Position of tuning dial	Adjustment	VTVM Oscilloscope or DC voltmeter
		Input	Output				
1	Tuning coverage	—	Connect to Digital DC voltmeter TP11 (H), TP12 (G)	144 kHz	Low end	L2154	$1.5 \pm 0.05 \text{ V}$
				288 kHz	High end	—	(less than 9.0V)
2	Tracking	Connect AM SG to Test Loop (SG = $85\text{dB}_{\mu\text{V}}$)	Connect to VTVM TP13 (H) or TP14 (H), TP15 (G)	162 kHz	162 kHz	L2151	Max.
				279 kHz	279 kHz	CT251	

EXPLODED VIEW (CABINET & CHASSIS)



PARTS LIST

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol Δ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified Δ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

CAUTION: Regular type resistors and capacitors are not listed. To know those values, refer to the schematic diagram.

Regular type resistors are less than 1/4W carbon type and 0 ohm chip resistors.

Regular type capacitors are less than 50V and less than 1000 μ F type of Ceramic type and Electrical type.

PACKING & ACCESSORIES

Ref. No.	Part No.	Description
	614 279 2957	CARTON CASE, SET (XE)
	614 279 4111	CARTON CASE, SET (UK)
	614 273 2366	CUSHION, FRONT
	614 273 2359	CUSHION, BACK
	614 271 6656	CUSHION, SET (XE)
	614 269 0949	CUSHION, SET (UK)
	614 280 1871	INSTRUCTION MANUAL (XE)
	614 280 1864	INSTRUCTION MANUAL (UK)
	614 229 4635	ANTENNA, FM ANT
	645 005 1227	ASSY, ANTENNA, LOOP, AM LOOP
	645 010 0918	REMOCON, RB-D17PV
	645 005 7007	LID, REMOTE CONTROL
	614 245 8587	NOTICE, AC POWER CORD (UK)

Ref. No.	Part No.	Description
43	614 265 7065	HOLDER, BRACKET, CD SIDE
44	614 280 1697	PANEL, REAR (XE)
44	614 279 0557	PANEL, REAR (UK)
45	614 129 1901	FIXER, AC POWER CORD
46	614 280 6494	SPACER, BOSS FIX
47	614 265 7041	HEAT SINK, UPPER
48	614 265 7034	HEAT SINK, LOWER
49	614 279 1523	CABINET, BOTTOM
50	614 265 7249	STAND
	614 281 7858	SPACER CUSHION, FRONT PWB
	614 232 0464	LABEL, SAFETY, LASER
	614 191 3698	LABEL, LASER PICK UP
	614 231 6832	LABEL, SAFETY, LASER
		CLASS 1 INDICATE
	614 129 4971	FIXER, LEAD MTG.

CABINET & CHASSIS

Ref. No.	Part No.	Description
1	614 272 4941	COVER, DECK (L)
2	614 273 2014	DEC, WINDOW, DECK (L)
3	614 273 2724	ASSY, LID, CASSETTE, DECK (L)
4	614 273 1987	COVER, DECK (R)
5	614 275 7543	DEC, WINDOW, DECK (R)
6	614 273 2731	ASSY, LID, CASSETTE, DECK (R)
7	614 273 2137	KNOB, ROTARY, MAIN VOLUME
8	614 273 2144	KNOB, ROTARY, BALANCE ETC.
9	614 280 1642	DEC, WINDOW, DISPLAY
10	614 270 8316	ASSY, GEAR
11	614 273 3134	MOUNTING, BRACKET, FRONT FIX (L)
12	614 273 3172	SPRING, WIRE, CASSETTE OPEN (L)
13	614 270 8316	ASSY, GEAR
14	614 273 3189	SPRING, WIRE, CASSETTE OPEN (R)
15	614 273 3141	MOUNTING, BRACKET, FRONT FIX (R)
16	614 280 1604	ASSY, PANEL, FRONT
21	614 273 1826	BUTTON, EDIT
22	614 273 1949	BUTTON, COMP REC
23	614 273 2052	DEC, WINDOW, STANDBY
24	614 278 9278	BUTTON, POWER
25	614 280 1611	BUTTON, DEMO
26	614 273 1802	BUTTON, FM MODE
27	614 273 2069	DEC, WINDOW, A/B
28	614 275 7529	BUTTON, DECK
29	614 273 2045	DEC, WINDOW, FUNCTION
30	614 273 1925	BUTTON, SOUND PRESET
31	614 273 1932	BUTTON, OPEN/CLOSE
32	614 273 1819	BUTTON, BAND
33	614 273 1796	BUTTON, CD PLAY/STOP
34	614 273 2076	DEC, WINDOW, REC
35	614 273 1840	BUTTON, FUNCTION
36	614 273 2212	REFLECTOR, FUNCTION
41	614 273 1963	CABINET
42	614 273 2113	DEC, CD TRAY

FIXING PARTS

Ref. No.	Part No.	Description
Y01	411 021 6603	SCR S-TPG BIN 3X8MM, REAR-CABINET
Y02	411 021 6603	SCR S-TPG BIN 3X8MM, CABINET
Y03	411 021 3503	SCR S-TPG BIN 3X10MM, REAR-CD MECHA
Y04	411 021 3503	SCR S-TPG BIN 3X10MM, REAR-EL PARTS
	411 021 3503	SCR S-TPG BIN 3X10MM, REAR-HEAT SINK
Y05	411 001 3905	SCR S-TPG BIN 4X6MM, POWER TRANSFORMER
Y06	411 021 3503	SCR S-TPG BIN 3X10MM, 3-REGULATOR
Y07	411 021 3503	SCR S-TPG BIN 3X10MM, HEAT SINK
Y08	411 020 9506	SCR S-TPG BRZ+FLG 3X10MM, HEAT SINK POWER IC
Y09	411 020 9902	SCR S-TPG BRZ+FLG 3X8MM, HEAT SINK-AMP PWB
Y10	411 021 3503	SCR S-TPG BIN 3X10MM, BOTTOM-STAND
Y11	411 021 3503	SCR S-TPG BIN 3X10MM, BOTTOM-FRONT
Y21	411 021 3503	SCR S-TPG BIN 3X10MM, FRONT-CD BLOCK
Y22	411 021 6405	SCR S-TPG BIN 3X8MM, CD MECHA-CD BRACKET
Y23	411 021 6405	SCR S-TPG BIN 3X8MM, CI PWB
Y24	411 021 3503	SCR S-TPG BIN 3X10MM, FRONT PWB
Y25	411 021 3503	SCR S-TPG BIN 3X10MM, I/O S
Y26	411 021 3503	SCR S-TPG BIN 3X10MM, IUT TON
Y27	411 021 3503	SCR S-TPG BIN 3X10MM, DECK MECHA
Y28	411 021 3503	SCR S-TPG BIN 3X10MM, FRONT UNDER BRACKET FIX
Y29	411 021 3503	SCR S-TPG BIN 3X10MM, MAIN VOL

PARTS LIST

Ref. No.	Part No.	Description
Y31	411 098 0801	SCR S-TPG BIN 3X14MM, PHONO GND
Y32	411 008 0402	WASHER, OUT TW, 3X8.5X0.45MM, PHONO
Y33	411 105 9704	WASHER Z 3X10X1MM, PHONO
Y34	411 021 3503	SCR S-TPG BIN 3X10MM, CD BRACKET, PHONO PWB

ELECTRICAL PARTS

Ref. No.	Part No.	Description
71	△614 255 2513	POWER CORD, AC (XE)
or	△614 023 3148	POWER CORD, AC (XE)
or	△614 233 8971	POWER CORD, AC (XE)
71	△645 008 9732	POWER CORD, AC (UK)
or	△645 005 7120	POWER CORD, AC (UK)
72	△614 016 8079	TRANSFORMER, POWER (T001)
73	△423 016 9902	FUSE 250V 0.8A (FU499)
74	△423 016 8004	FUSE 250V 3.15A (FU490)
75	△423 016 8004	FUSE 250V 3.15A (FU491)
CN381	614 276 3575	ASSY, WIRE, 4P, A HEAD
CN382	614 276 3582	ASSY, WIRE, 7P, B HEAD

TUNER/AMP/TAPE DECK P.W.BOARD ASSY

Ref. No.	Part No.	Description
61	614 280 0294	ASSY, PWB, TUNER/AMP. / 41K08A
C2152	403 082 0201	POLYPRO 470P J 100V
C2155	403 082 2205	POLYPRO 560P J 100V
C2463	403 108 1803	NP-ELECT 1U Q 50V
C3305	403 058 9900	POLYESTER 0.018U K 50V
C3306	403 058 1102	POLYESTER 1500P K 50V
C4534	403 067 7003	MT-COMPO 0.27U J 50V
C4634	403 067 7003	MT-COMPO 0.27U J 50V
C4716	403 061 9607	POLESTER 0.047U J 50V
or	403 062 0306	POLYESTER 0.047U K 50V
C4816	403 061 9607	POLESTER 0.047U J 50V
or	403 062 0306	POLYESTER 0.047U K 50V
C4904	403 200 0304	ELECT 3300U M 35V
C4905	403 200 0304	ELECT 3300U M 35V
C4908	404 060 2705	OS-SOLID 10U M 10V
C4941	404 060 3009	OS-SOLID 10U M 16V
C4942	403 062 6902	POLYESTER 0.056U K 50V
C4946	404 060 2705	OS-SOLID 10U M 10V
C4948	404 060 2806	OS-SOLID 1U M 10V
CN201	614 255 5750	TERMINAL, FM ANTENNA
CN202	614 234 1728	TERMINAL, GROUND
CN371	645 005 8110	PLUG, 4P
CN372	645 006 0861	PLUG, 7P
CN373	614 251 7338	SOCKET, 3P
CN402	614 227 0011	SOCKET, 10P
CN403	614 227 0011	SOCKET, 10P
CN404	614 226 9985	SOCKET, 6P
CN441	614 249 8613	SOCKET, PHONO/VIDEO
CN443	614 020 1239	SOCKET, 4P
CN444	645 009 0042	JACK, PHONE D6.43
CN445	645 008 5314	TERMINAL, SPEAKER
CN447	614 020 6555	SOCKET, 3P
or	614 223 9216	SOCKET, 3P
CN448	614 020 1222	SOCKET, 3P
CN449	614 020 1222	SOCKET, 3P
CN450	614 249 8613	SOCKET, SURROUND SPEAKER

Ref. No.	Part No.	Description
CN451	614 020 6593	SOCKET, 7P
or	614 223 9254	SOCKET, 7P
CT251	645 004 2317	TRIMMER, 30PF
CT252	614 007 6356	TRIMMER, 11PF
D2151	407 091 5004	VARACTOR DI SVC321SPA-C-2
D2152	407 091 5004	VARACTOR DI SVC321SPA-C-2
D2153	407 012 4406	DIODE 1SS133
D2301	407 012 4406	DIODE 1SS133
D2451	407 012 4406	DIODE 1SS133
		(D2451-D2455)
D3151	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
or	407 012 5809	DIODE 1SS176
or	407 153 6109	DIODE 1SS119-041
D3152	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
or	407 012 5809	DIODE 1SS176
or	407 153 6109	DIODE 1SS119-041
D4900	407 012 4406	DIODE 1SS133 (D4901-D4902)
D4908	407 099 6607	ZENER DIODE MTZJ12B
D4909	407 012 4406	DIODE 1SS133
D4910	407 099 5501	ZENER DIODE MTZJ6.2C
D4911	407 099 6805	ZENER DIODE MTZJ13B
D4912	407 141 2809	DIODE IN5402
D4913	407 141 2809	DIODE IN5402
D4914	407 141 2809	DIODE IN5402
D4915	407 141 2809	DIODE IN5402
D4916	407 099 4603	ZENER DIODE MTZJ3.9B
D4917	407 012 4406	DIODE 1SS133
D4918	407 012 4406	DIODE 1SS133
D4921	407 012 4406	DIODE 1SS133
D4922	407 012 4406	DIODE 1SS133
D4925	407 012 4406	DIODE 1SS133
D4931	407 012 4406	DIODE 1SS133
D4932	407 012 4406	DIODE 1SS133
D4933	407 098 3300	DIODE RL153-BF-S2
or	407 107 6001	DIODE RL203-BD80
FCLP1	645 006 4760	HOLDER, FUSE
FCLP2	645 006 4760	HOLDER, FUSE
FCLP3	645 006 4760	HOLDER, FUSE
FCLP4	645 006 4760	HOLDER, FUSE
HS301	614 215 9347	HEAT SINK, BIAS_LEAK
IC231	409 345 5204	IC TA2057N
IC245	409 066 7600	IC LM7001
IC311	409 353 8808	IC BU4094BCF
IC351	409 199 1209	IC HA12136A
or	409 270 2101	IC HA12136AT
IC371	409 228 0302	IC M51167BFP
IC372	409 241 5308	IC BA3126N
IC440	409 222 5709	IC MC14052BF
IC443	409 133 8103	IC NJM4558M-S
or	409 282 7507	IC RC4558M-S
IC444	409 222 5709	IC MC14052BF
IC445	409 353 8808	IC BU4094BCF
IC446	△409 102 0206	IC STK4142MK2
IC448	409 133 8103	IC NJM4558M-S
or	409 282 7507	IC RC4558M-S
L2151	614 255 5798	TRANS, RF, LW
L2152	614 255 5781	TRANS, RF, MW
L2153	614 255 5767	TRANS, OSC, MW
L2154	614 255 5774	TRANS, OSC, LW
L2155	645 004 0580	INDUCTOR, 1M J
L2451	645 001 4581	INDUCTOR, 100U K

PARTS LIST

Ref. No.	Part No.	Description
L3301	614 212 0804	TRANS,OSC
L3501	614 270 4295	FILTER,LC,19 & 85 KHZ
L3551	614 270 4295	FILTER,LC,19 & 85 KHZ
L3701	645 004 0580	INDUCTOR,1M J
L3702	614 029 3142	MX COIL,85 KHZ
or	614 029 3937	MX COIL,85 KHZ
L3801	645 004 0580	INDUCTOR,1M J
L3802	614 029 3142	MX COIL,85 KHZ
or	614 029 3937	MX COIL,85 KHZ
Q2152	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 019 3903	TR 2SC536-G-SPA
Q2153	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 019 3903	TR 2SC536-G-SPA
Q2154	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 019 3903	TR 2SC536-G-SPA
Q2155	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 019 3903	TR 2SC536-G-SPA
Q2156	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 019 3903	TR 2SC536-G-SPA
Q2157	405 114 8407	TR 2SK193-LL
or	405 114 8506	TR 2SK193-ML
Q2201	405 018 0905	TR 2SC2839-E-SPA
Q2301	405 000 0508	TR DTA114ES
or	405 078 2305	TR BN1A4M
Q2302	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 7503	TR 2SC1740-S
or	405 020 7204	TR 2SC945A-K
or	405 019 3903	TR 2SC536-G-SPA
Q2461	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 7503	TR 2SC1740-S
or	405 020 7204	TR 2SC945A-K
or	405 019 3903	TR 2SC536-G-SPA
Q2462	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 7503	TR 2SC1740-S
or	405 020 7204	TR 2SC945A-K
or	405 019 3903	TR 2SC536-G-SPA
Q2491	405 000 0508	TR DTA114ES
or	405 078 2305	TR BN1A4M
Q2492	405 000 0508	TR DTA114ES
or	405 078 2305	TR BN1A4M
Q2493	405 000 0508	TR DTA114ES
or	405 078 2305	TR BN1A4M
Q3154	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q3155	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q3156	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q3157	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q3180	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q3301	405 006 3909	TR 2SA952-K
or	405 006 4005	TR 2SA952-L
Q3302	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q3303	405 005 1906	TR 2SA733-K
or	405 005 2002	TR 2SA733-P
Q3304	405 075 8409	TR DTC144TS
or	405 105 7204	TR BA1L4Z

Ref. No.	Part No.	Description
Q3305	405 012 7403	TR 2SC2001-K
or	405 012 7502	TR 2SC2001-L
Q3306	405 137 6404	TR 2SC2003-K
or	405 012 8103	TR 2SC2003-L
Q3701	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q3702	405 075 8409	TR DTC144TS
or	405 105 7204	TR BA1L4Z
Q3703	405 075 8409	TR DTC144TS
or	405 105 7204	TR BA1L4Z
Q3752	405 075 8409	TR DTC144TS
or	405 105 7204	TR BA1L4Z
Q3753	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q3801	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q3802	405 075 8409	TR DTC144TS
or	405 105 7204	TR BA1L4Z
Q3803	405 075 8409	TR DTC144TS
or	405 105 7204	TR BA1L4Z
Q3852	405 075 8409	TR DTC144TS
or	405 105 7204	TR BA1L4Z
Q3853	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q4400	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q4401	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q4402	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q4403	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q4404	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q4405	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q4406	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q4407	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q4408	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q4502	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q4503	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q4504	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q4506	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q4507	405 021 0600	TR 2SD1012-G-SPA
Q4563	405 021 0600	TR 2SD1012-G-SPA
Q4602	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q4603	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q4604	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q4606	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q4607	405 021 0600	TR 2SD1012-G-SPA
Q4663	405 021 0600	TR 2SD1012-G-SPA

PARTS LIST

Ref. No.	Part No.	Description
Q4702	405 011 8608	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q4802	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q4902	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q4904	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q4905	405 005 2002	TR 2SA733-P
or	405 005 1906	TR 2SA733-K
Q4906	405 000 0904	TR DTA114YS
or	405 078 2404	TR BN1A4P
Q4907	405 077 9008	TR TIP29B
Q4908	405 035 7107	TR 2SD1913-R
or	405 035 7206	TR 2SD1913-S
Q4909	405 077 9008	TR TIP29B
Q4910	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q4911	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q4921	405 004 4601	TR 2SA608-F-SPA
or	405 003 5401	TR 2SA1317-U
or	405 006 1905	TR 2SA933S-S
or	405 006 1806	TR 2SA933S-R
Q4922	405 000 6104	TR DTC144ES
or	405 078 3005	TR BA1L4M
or	405 001 0408	TR RN1204
R4449	△402 071 9409	FUSIBLE RES 68 JA 1/4W
R4455	△402 071 0307	FUSIBLE RES 10 JA 1/4W
R4706	402 045 2603	RESISTOR 4.7 J- 1W
R4708	402 048 4208	RESISTOR 330 J- 1W
R4709	402 045 5307	RESISTOR 0.1 J- 2W
R4805	402 049 3101	RESISTOR 2.2K J- 2W
R4806	402 045 2603	RESISTOR 4.7 J- 1W
R4808	402 048 4208	RESISTOR 330 J- 1W
R4809	402 045 5307	RESISTOR 0.1 J- 2W
R4903	△402 071 0307	FUSIBLE RES 10 JA 1/4W
R4904	△402 060 5306	RESISTOR 1 J- 1/2W
R4939	△402 071 7207	FUSIBLE RES 100 JA 1/4W
R4948	△402 071 7207	FUSIBLE RES 100 JA 1/4W
RY440	614 224 4531	RELAY
RY441	614 218 5032	RELAY, POWER
S4900	614 215 9828	SWITCH, TACT, RESET
S4901	614 244 8335	SWITCH, SLIDE
T2301	614 255 8119	FILTER, LC
U2101	614 252 1038	TUNER, FM
VR371	614 250 7247	POTENTIOMETER, 10K OHM B
VR372	614 250 7247	POTENTIOMETER, 10K OHM B
VR373	614 250 7247	POTENTIOMETER, 10K OHM B
VR374	614 250 7285	POTENTIOMETER, 100K OHM B
VR381	614 250 7247	POTENTIOMETER, 10K OHM B
VR382	614 250 7247	POTENTIOMETER, 10K OHM B
VR383	614 250 7247	POTENTIOMETER, 10K OHM B
VR384	614 250 7285	POTENTIOMETER, 100K OHM B
VR441	645 009 8635	VR, ROTARY 100KBX2
X2301	645 009 5832	OSC, CERAMIC 456KHZ
X2451	614 229 2457	CRYSTAL, 7.2MHZ
or	614 204 0317	CRYSTAL, 7.2MHZ
or	614 240 1118	RESONATOR, 7.2MHZ
or	645 010 9720	OSC, CRYSTAL 7.2MHZ
XF221	614 240 2917	FILTER, CERAMIC, FM
or	614 254 3214	FILTER, FM
XF222	614 240 2917	FILTER, CERAMIC, FM
or	614 254 3214	FILTER, FM
XF231	614 246 0849	FILTER, AM
XF232	645 009 5856	DISCR, CERAMIC, FM

POWER TRANSFORMER, PRIMARY P.W.BOARD ASSY

Ref. No.	Part No.	Description
62	614 280 0300	ASSY, PWB, PT, PRIMARY
FCLP5	645 006 4760	HOLDER, FUSE
FCLP6	645 006 4760	HOLDER, FUSE
WR498	614 017 8203	TERMINAL BOARD, 1P
WR499	614 017 8203	TERMINAL BOARD, 1P
L4999	△614 229 0422	INDUCTOR, FERITE

POWER TRANSFORMER, SECONDARY P.W.BOARD ASSY

Ref. No.	Part No.	Description
63	614 280 0317	ASSY, PWB, PT, SECONDARY
CN495	614 020 1239	SOCKET, 4P
CN496	645 006 0915	PLUG, 4P
D4950	407 127 3905	ZENER DIODE MTZJ5.6B
D4951	407 099 9806	ZENER DIODE MTZJ33A
D4952	407 012 4406	DIODE 1SS133
D4953	407 012 4406	DIODE 1SS133
D4954	407 012 4406	DIODE 1SS133
D4955	407 012 4406	DIODE 1SS133
D4956	407 107 6001	DIODE RL203-BD80
D4957	407 107 6001	DIODE RL203-BD80
D4958	407 012 4406	DIODE 1SS133
Q4950	405 004 4502	TR 2SA608-F-NP
or	405 001 7001	TR 2SA1015-GR
R4952	△402 071 9508	FUSIBLE RES 1 JA 1/4W
R4955	△402 044 6008	RESISTOR 0.1 J- 1/2W
R4956	△402 044 6008	RESISTOR 0.1 J- 1/2W

REGULATOR (A) P.W.BOARD ASSY

Ref. No.	Part No.	Description
64	614 280 0324	ASSY, PWB, REGULATOR(A)
CN420	614 020 8555	SOCKET, 3P
or	614 223 9216	SOCKET, 3P
Q4200	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q4201	405 035 7107	TR 2SD1913-R
or	405 035 7206	TR 2SD1913-S
R4200	△402 060 5306	RESISTOR 1 J- 1/2W

REGULATOR (B) P.W.BOARD ASSY

Ref. No.	Part No.	Description
65	614 280 0331	ASSY, PWB, REGULATOR(B)
Q4250	405 035 7107	TR 2SD1913-R
or	405 035 7206	TR 2SD1913-S
R4250	△402 060 5306	RESISTOR 1 J- 1/2W

PARTS LIST

CD P.W.BOARD ASSY

Ref. No.	Part No.	Description
66	614 276 7009	ASSY,PWB,CD
C1153	403 058 5209	POLYESTER 0.15U K 50V
CN101	645 005 8110	PLUG,4P
OR	645 007 0075	PLUG,4P
CN111	645 010 1472	SOCKET,FPC 13P
CN113	645 008 0939	PLUG,6P
OR	645 009 6464	PLUG,6P
CN114	645 008 0922	PLUG,5P
or	645 009 6457	PLUG,5P
CN131	645 009 0165	SOCKET,16P,CD-FRONT
D1371	407 063 8606	ZENER DIODE MTZJ5.1A
D1601	△407 012 0309	DIODE 1N4003
or	△408 031 1209	DIODE 1N4003
D1602	△407 012 0309	DIODE 1N4003
or	△408 031 1209	DIODE 1N4003
D1603	△407 012 0309	DIODE 1N4003
or	△408 031 1209	DIODE 1N4003
IC101	409 327 3402	IC CXA1782BQ
IC102	409 317 8509	IC 8A6398FP
IC104	409 322 2707	IC CXD2518Q ←
IC106	409 039 7408	IC NJM4558D
or	409 018 4305	IC LA6458D
IC132	△409 114 4803	IC LB1641
L1401	645 001 4550	INDUCTOR,10U K
PR161	△645 014 2499	PROTECTOR,0.4A,125V
Q1101	405 004 4601	TR 2SA608-F-SPA
or	405 003 5401	TR 2SA1317-U
or	405 006 1905	TR 2SA933S-S
or	405 006 1806	TR 2SA933S-R
or	405 002 1305	TR 2SA1048-Y
or	405 002 1107	TR 2SA1048-GR
Q1102	405 006 1905	TR 2SA933S-S
or	405 006 1806	TR 2SA933S-R
Q1201	△405 078 8109	TR TIP32B
or	△405 138 3907	TR KTB988-Y
Q1202	405 008 7202	TR 2SB810-E
or	405 008 7301	TR 2SB810-F
Q1211	405 000 3806	TR DTC114YS
Q1321	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
Q1371	405 000 0508	TR DTA114ES
R1371	△402 049 2104	RESISTOR 15 J- 2W
VR101	645 006 2520	VR,SEMI,100K N
X1401	614 254 6932	RESONATOR,CERAMIC, 33.8688MHZ
or	614 259 2137	RESONATOR,CERAMIC,33.86MHZ

FRONT P.W.BOARD ASSY

Ref. No.	Part No.	Description
67	614 280 0720	ASSY,PWB,FRONT
BR261	614 273 2120	HOLDER,MOUNT
C2697	403 282 8607	DL-ELECT 0.047U Z 5.5V
CN261	645 009 0080	PLUG,16P,FRONT-CD
CN263	614 226 9978	PLUG,FRONT-SIDE1
CN264	614 226 9978	PLUG,FRONT-SIDE2
CN265	614 226 9930	PLUG,FRONT-SIDE3
CN266	614 035 4935	SOCKET,DIP 4P,FRONT-PT2
CN311	645 012 2743	SOCKET,DIP 9P,FRONT-DECK_A
CN312	614 020 6562	SOCKET,4P,FRONT-DECK MOTOR
or	614 223 9223	SOCKET,4P,FRONT-DECK MOTOR
CN313	614 035 5000	SOCKET,DIP 11P,FRONT-DECK_B
CN321	614 276 3805	ASSY,WIRE,9P,LEAD_DECK_A
CN323	614 276 3612	ASSY,WIRE,11P,LEAD_DECK_B
CN411	614 277 0245	ASSY,WIRE,4P,LEAD_FL_AC

Ref. No.	Part No.	Description
D2661	408 021 2209	LED SLZ-938C-19-AB-T1, STANDBY
D2662	408 019 4703	LED SLZ-981B-09-AB-T1,DECK
D2663	408 023 3105	LED SLZ-781C-09-AB-T1,DECK
D2664	408 019 4703	LED SLZ-981B-09-AB-T1,DECK
D2665	408 024 5306	LED SLZ-981B-22-AB-T2,FUNC
D2666	408 024 5306	LED SLZ-981B-22-AB-T2,FUNC
D2667	408 024 5306	LED SLZ-981B-22-AB-T2,FUNC
D2668	408 024 5306	LED SLZ-981B-22-AB-T2,FUNC
D2671	407 012 4406	DIODE 1SS133
D2672	407 012 4406	DIODE 1SS133
D2673	407 012 4406	DIODE 1SS133
D2674	407 099 5402	ZENER DIODE MTZJ6.2B
or	407 051 7208	ZENER DIODE GZS6.2Y
D2676	407 012 4406	DIODE 1SS133
D2677	407 012 4406	DIODE 1SS133
D2678	407 012 4406	DIODE 1SS133
D2679	407 012 4406	DIODE 1SS133
D2680	407 012 4406	DIODE 1SS133
D2681	408 024 5207	LED SLZ-781C-22-AB-T2
D2682	408 024 5207	LED SLZ-781C-22-AB-T2
D2683	408 024 5207	LED SLZ-781C-22-AB-T2
D2684	408 024 5207	LED SLZ-781C-22-AB-T2
D2685	408 024 5207	LED SLZ-781C-22-AB-T2
D2686	408 024 5207	LED SLZ-781C-22-AB-T2
D2687	408 024 5207	LED SLZ-781C-22-AB-T2
D2688	408 024 5207	LED SLZ-781C-22-AB-T2
FL261	645 014 8187	FLOURESCENT TUBE
IC261	410 246 2605	IC M38184M8-174FP
IC401	409 347 2102	IC M65844P
IC402	409 018 4305	IC LA6458D
or	409 039 7408	IC NJM4558D
L2671	645 001 4581	INDUCTOR,100U K
Q2661	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q2662	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q2663	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q2664	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q2665	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q2666	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q2667	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q2668	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q2671	405 017 9709	TR 2SC3330-U
or	405 020 7204	TR 2SC945A-K
or	405 011 7503	TR 2SC1740-S
Q2672	405 004 4601	TR 2SA608-F-SPA
or	405 003 5401	TR 2SA1317-U
or	405 006 1905	TR 2SA933S-S
or	405 006 1806	TR 2SA933S-R
Q2673	405 004 4601	TR 2SA608-F-SPA
or	405 003 5401	TR 2SA1317-U
or	405 006 1905	TR 2SA933S-S
or	405 006 1806	TR 2SA933S-R
Q3111	405 006 3909	TR 2SA952-K
or	405 006 4005	TR 2SA952-L
Q3112	405 006 3909	TR 2SA952-K
or	405 006 4005	TR 2SA952-L

PARTS LIST

Ref. No.	Part No.	Description
Q3113	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q3114	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q3121	405 004 4601	TR 2SA608-F-SPA
or	405 003 5401	TR 2SA1317-U
or	405 006 1905	TR 2SA933S-S
or	405 006 1806	TR 2SA933S-R
Q3122	405 006 3909	TR 2SA952-K
or	405 006 4005	TR 2SA952-L
Q3123	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q3124	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q3131	405 006 3909	TR 2SA952-K
or	405 006 4005	TR 2SA952-L
Q3132	405 006 3909	TR 2SA952-K
or	405 006 4005	TR 2SA952-L
Q3133	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
Q3134	405 000 3806	TR DTC114YS
or	405 068 4807	TR BA1A4P
S2600	614 240 1002	SWITCH,TACT,STOP
or	645 006 5958	SWITCH,PUSH 1P-1T
S2601	614 240 1002	SWITCH,TACT,PLAY
or	645 006 5958	SWITCH,PUSH 1P-1T
S2602	614 240 1002	SWITCH,TACT,SKIP(-)
or	645 006 5958	SWITCH,PUSH 1P-1T
S2603	614 240 1002	SWITCH,TACT,SKIP(+)
or	645 006 5958	SWITCH,PUSH 1P-1T
S2604	614 240 1002	SWITCH,TACT,OPEN/CLOSE
or	645 006 5958	SWITCH,PUSH 1P-1T
S2605	614 240 1002	SWITCH,TACT,COMPUTER REC
or	645 006 5958	SWITCH,PUSH 1P-1T
S2606	614 240 1002	SWITCH,TACT,REPEAT
or	645 006 5958	SWITCH,PUSH 1P-1T
S2607	614 240 1002	SWITCH,TACT,EDIT
or	645 006 5958	SWITCH,PUSH 1P-1T
S2621	614 240 1002	SWITCH,TACT,MEMORY
or	645 006 5958	SWITCH,PUSH 1P-1T
S2622	614 240 1002	SWITCH,TACT,MODE
or	645 006 5958	SWITCH,PUSH 1P-1T
S2623	614 240 1002	SWITCH,TACT,BAND
or	645 006 5958	SWITCH,PUSH 1P-1T
S2624	614 240 1002	SWITCH,TACT,TUNING(-)
or	645 006 5958	SWITCH,PUSH 1P-1T
S2625	614 240 1002	SWITCH,TACT,TUNING(+)
or	645 006 5958	SWITCH,PUSH 1P-1T
S2626	614 240 1002	SWITCH,TACT,PRESET(-)
or	645 006 5958	SWITCH,PUSH 1P-1T
S2627	614 240 1002	SWITCH,TACT,PRESET(+)
or	645 006 5958	SWITCH,PUSH 1P-1T
S2628	614 240 1002	SWITCH,TACT,BASSXPANDER
or	645 006 5958	SWITCH,PUSH 1P-1T
S2629	614 240 1002	SWITCH,TACT,FUNCTION
or	645 006 5958	SWITCH,PUSH 1P-1T
S2630	614 240 1002	SWITCH,TACT,SOUND PRESET
or	645 006 5958	SWITCH,PUSH 1P-1T
S2640	614 240 1002	SWITCH,TACT,REVERSE
or	645 006 5958	SWITCH,PUSH 1P-1T

Ref. No.	Part No.	Description
S2641	614 240 1002	SWITCH,TACT,TAPE A/B
or	645 006 5958	SWITCH,PUSH 1P-1T
S2642	614 240 1002	SWITCH,TACT,REW
or	645 006 5958	SWITCH,PUSH 1P-1T
S2643	614 240 1002	SWITCH,TACT,PLAY
or	645 006 5958	SWITCH,PUSH 1P-1T
S2644	614 240 1002	SWITCH,TACT,STOP
or	645 006 5958	SWITCH,PUSH 1P-1T
S2645	614 240 1002	SWITCH,TACT,PLAY
or	645 006 5958	SWITCH,PUSH 1P-1T
S2646	614 240 1002	SWITCH,TACT,F.FWD(TAPE A)
or	645 006 5958	SWITCH,PUSH 1P-1T
S2647	614 240 1002	SWITCH,TACT,REC
or	645 006 5958	SWITCH,PUSH 1P-1T
S2649	614 240 1002	SWITCH,TACT,DUBBING
or	645 006 5958	SWITCH,PUSH 1P-1T
S2650	614 240 1002	SWITCH,TACT,DOLBY
or	645 006 5958	SWITCH,PUSH 1P-1T
S2651	614 240 1002	SWITCH,TACT,DISPLAY
or	645 006 5958	SWITCH,PUSH 1P-1T
S2699	614 246 7138	SWITCH,PUSH,POWER
SE261	407 159 0309	PHOTO DIODE SPS-424-1,IR
VR261	614 275 5327	VR,ROTARY,BALANCE
VR311	614 250 7230	POTENTIOMETER,TAPE SPEED ADJ
X2671	614 215 5561	RESONATOR,CERAMIC,4.19MHZ

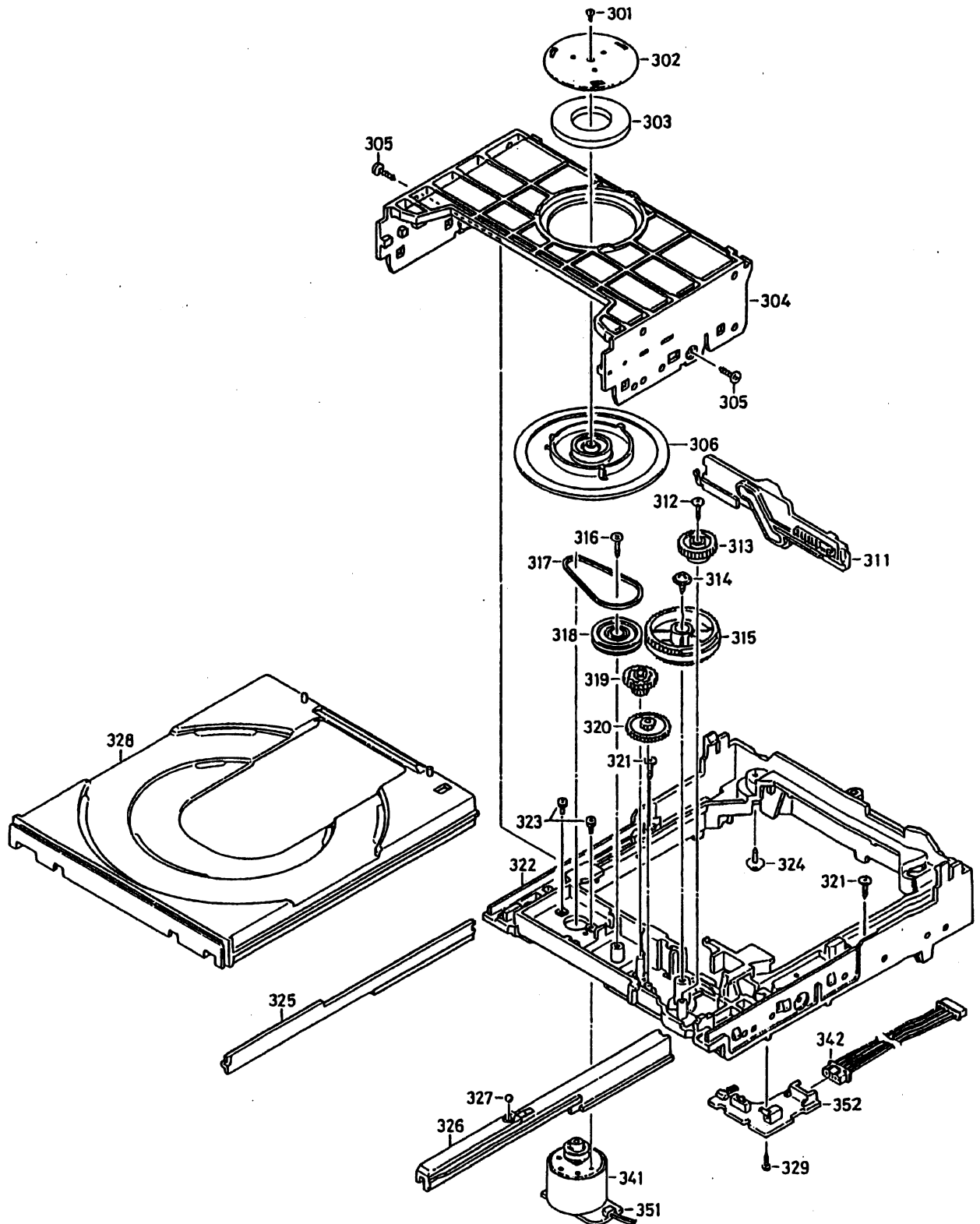
PHONO AMP. P.W.BOARD ASSY

Ref. No.	Part No.	Description
68	614 280 0348	ASSY,PWB,PHONO AMP
C4573	403 058 9108	POLYESTER 0.018U J 50V
C4673	403 058 9108	POLYESTER 0.018U J 50V
CN457	614 020 6593	SOCKET,7P
or	614 223 9254	SOCKET,7P
IC457	409 133 8103	IC NJM4558M-S
or	409 282 7507	IC RC4558M-S

SPEAKER BOX (SX-F180L/XE, SX-F180R/XE) (only XE)

Ref. No.	Part No.	Description
	645 013 9406	CHUSHION (TOP)
	645 013 9413	CHUSHION (BOTTOM)
	614 282 2401	SHEET
	645 016 0110	ASSY,GRILLE

EXPLODED VIEW (CD MECHANISM, LOADING)



PARTS LIST

CD MECHANISM (PM-CDLMSS21SP)

Ref. No.	Part No.	Description
301	411 162 1901	SCR S-TPG PAN PCS 2X3MM, PLATE
302	614 226 6885	PLATE,MAGNET FIX
or	614 233 0227	PLATE,MAGNET FIX
303	614 262 8904	MAGNET,CHUCK
304	614 237 7017	MOUNT-M,CHUCK MOUNTING
or	614 255 2605	MOUNT-M,CHUCK MOUNTING
305	411 021 3107	SCR S-TPG BIN 2.6X8MM, MOUNT-M
306	614 228 5848	ASSY,PULLEY,CHUCK
311	614 237 7208	SLIDE,BASE UP/DOWN
312	412 047 3904	SPECIAL SCREW,LOADING GEAR
313	614 237 7079	GEAR,LOADING GEAR
314	411 020 9803	SCR S-TPG BRZ+FLG 3X6MM, GEAR
315	614 237 7062	GEAR,LOADING CAM
316	411 021 3107	SCR S-TPG BIN 2.6X8MM, PULLEY
317	614 237 7178	BELT,SQUARE,LOADING
318	614 237 7161	PULLEY,LOADING RELAY
319	614 237 7048	GEAR,LOADING RETARD 1
320	614 237 7055	GEAR,LOADING RETARD 2
321	412 047 3904	SPECIAL SCREW,TRAY GUIDE
322	614 237 6973	CHASSIS,LOADING
or	614 255 2575	CHASSIS,LOADING
323	411 044 7502	SCR PAN+SW 2X5MM, LOADING MOTOR
324	411 020 9803	SCR S-TPG BRZ+FLG 3X6MM, CHASSIS SUB
325	614 237 7192	SLIDE,TRAY GUIDE (L)
or	614 255 3954	SLIDE,TRAY GUIDE (L)
326	614 237 7185	SLIDE,TRAY GUIDE (R)
or	614 255 3947	SLIDE,TRAY GUIDE(R)
327	614 118 5927	STEEL BALL,TRAY GUIDE(R) LOCK
328	614 237 7215	TABLE,LOADING,TRAY
or	614 255 2612	TABLE,LOADING,TRAY
329	411 022 7807	SCR S-TPG PAN 2X6MM,SW PWB
341	645 007 7908	ASSY,MOTOR CD-LOADING
342	614 273 6890	ASSY,CONNECTOR-S,SW PWB
401	614 265 7881	ASSY,CHASSIS,BASE MECHA
401-1	614 238 0413	TURNTABLE,SPINDLE
or	614 216 9841	TURNTABLE,SPINDLE
401-2	411 044 7502	SCR PAN+SW 2X5MM, SPINDLE MOTOR
401-3	614 262 2582	CHASSIS,BASE MECHA
401-4	412 032 0208	SPECIAL WASHER,ADHESIVE ESCAPE STOP
401-5	645 007 7821	MOTOR,CD-SPINDLE DC 0.2W
402	411 044 8004	SCR PAN+SW 2X8MM,SLED MOTOR
403	614 237 7031	CUSHION,RUBBER,BASE MECHA FLOATING
or	614 277 1952	CUSHION,BASE MECHA FLOATING
404	614 237 7024	SHAFT,PICK UP RAIL
or	614 277 8029	SHAFT,PICK UP RAIL
405	411 152 4301	SCR S-TPG PAN PCS 1.7X6MM, PICK RACK GEAR

Ref. No.	Part No.	Description
406	614 262 2599	GEAR,RACK,PICK
407	614 238 6934	SPRING,COMP,PICK RACK GEAR
408	645 006 7983	PICKUP,LASER SF-P100
409	645 007 8873	FLEXIBLE FLAT CABLE,PICK UP (SUMI CARD)
410	614 237 7093	GEAR,SLED RETARD 1
411	614 237 7109	GEAR,SLED RETARD 2
412	614 237 7116	GEAR,SLED
413	412 047 3904	SPECIAL SCREW,SLED GEAR
414	614 225 0372	ASSY,CONNECTOR-S,6P, BASE MECHA PWB
415	614 247 4907	SPRING,COMP,BASE MECHA FLOATING
416	614 237 7000	CHASSIS,SUB,BASE MECHA MOUNTING
or	614 255 2599	CHASSIS,SUB,BASE MECHA MOUNTING
417	411 021 3107	SCR S-TPG BIN 2.6X8MM, BASE MECHA
418	412 044 3907	SPECIAL WASHER,BASE MECHA
441	645 007 7814	ASSY,MOTOR CD-SLED,SLED

LOADING MOTOR P.W.BOARD ASSY

Ref. No.	Part No.	Description
351	614 251 6478	ASSY,PWB,MOTOR
C599	403 121 9509	CERAMIC 0.1U Z 50V

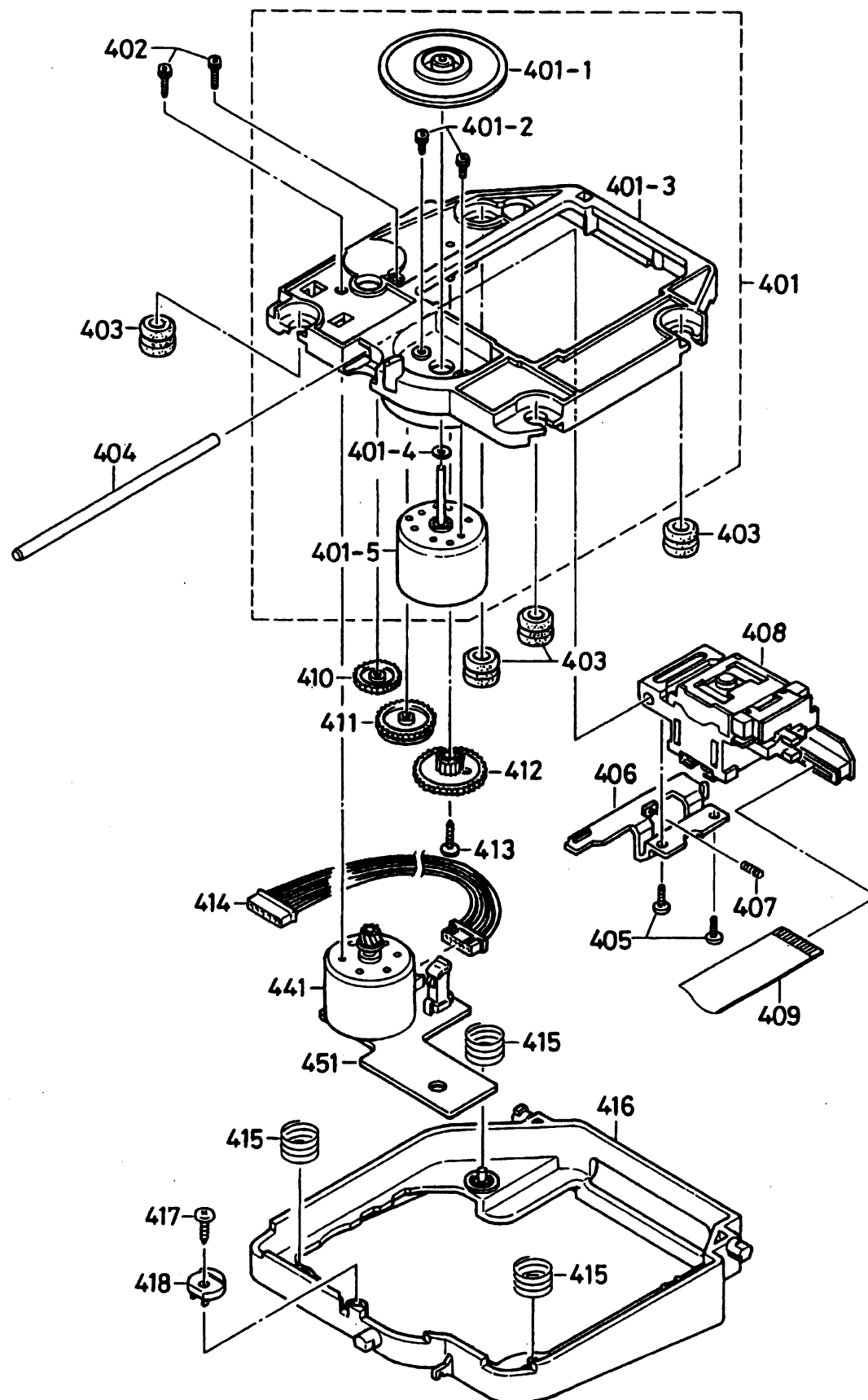
OPEN / CLOSE SWITCH P.W.BOARD ASSY

Ref. No.	Part No.	Description
352	614 251 6461	ASSY,PWB,OPEN/CLOSE SWITCH
CN011	645 006 0922	PLUG,5P,SWITCH PWB CONNECTOR
or	645 009 6457	PLUG,5P,SWITCH PWB CONNECTOR
CN012	614 250 6677	ASSY,CONNECTOR-S,MOTOR LEAD
S011	645 012 5874	SWITCH,LEVER 1P-1T,CHUCK END
S012	645 012 5850	SWITCH,LEVER 1P-2T,TRAY OPEN END

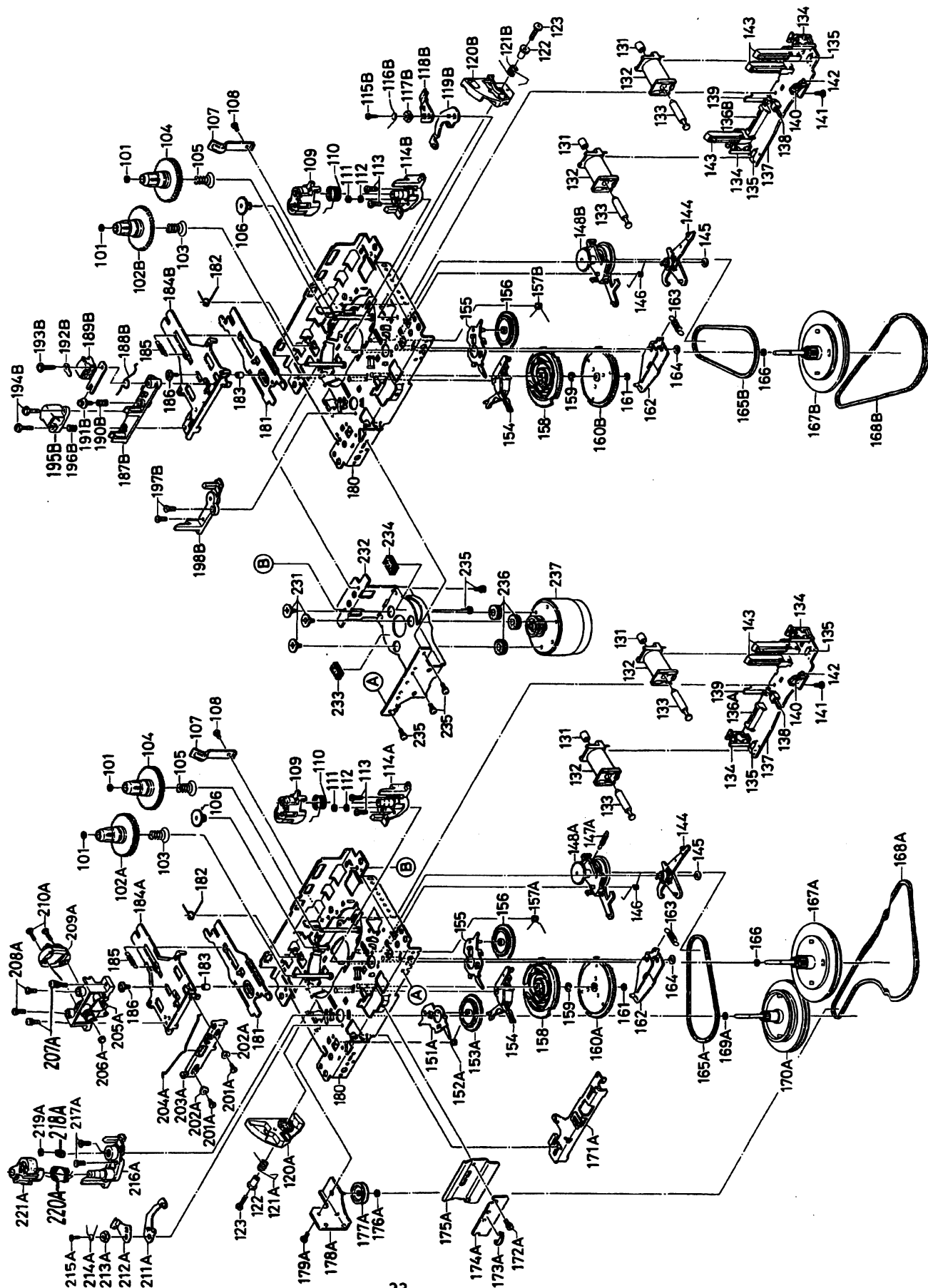
SLED / SPINDLE MOTOR P.W.BOARD ASSY

Ref. No.	Part No.	Description
451	614 251 6485	ASSY,PWB,MOTOR & LIMIT SW
CN001	645 009 6464	PLUG,6P,MOTOR PWB CONNECTOR
or	645 006 0939	PLUG,6P,MOTOR PWB CONNECTOR
S001	645 012 5836	SWITCH,LEAF,LIMIT

EXPLODED VIEW (CD MECHANISM, MAIN)



EXPLODED VIEW (TAPE MECHANISM)



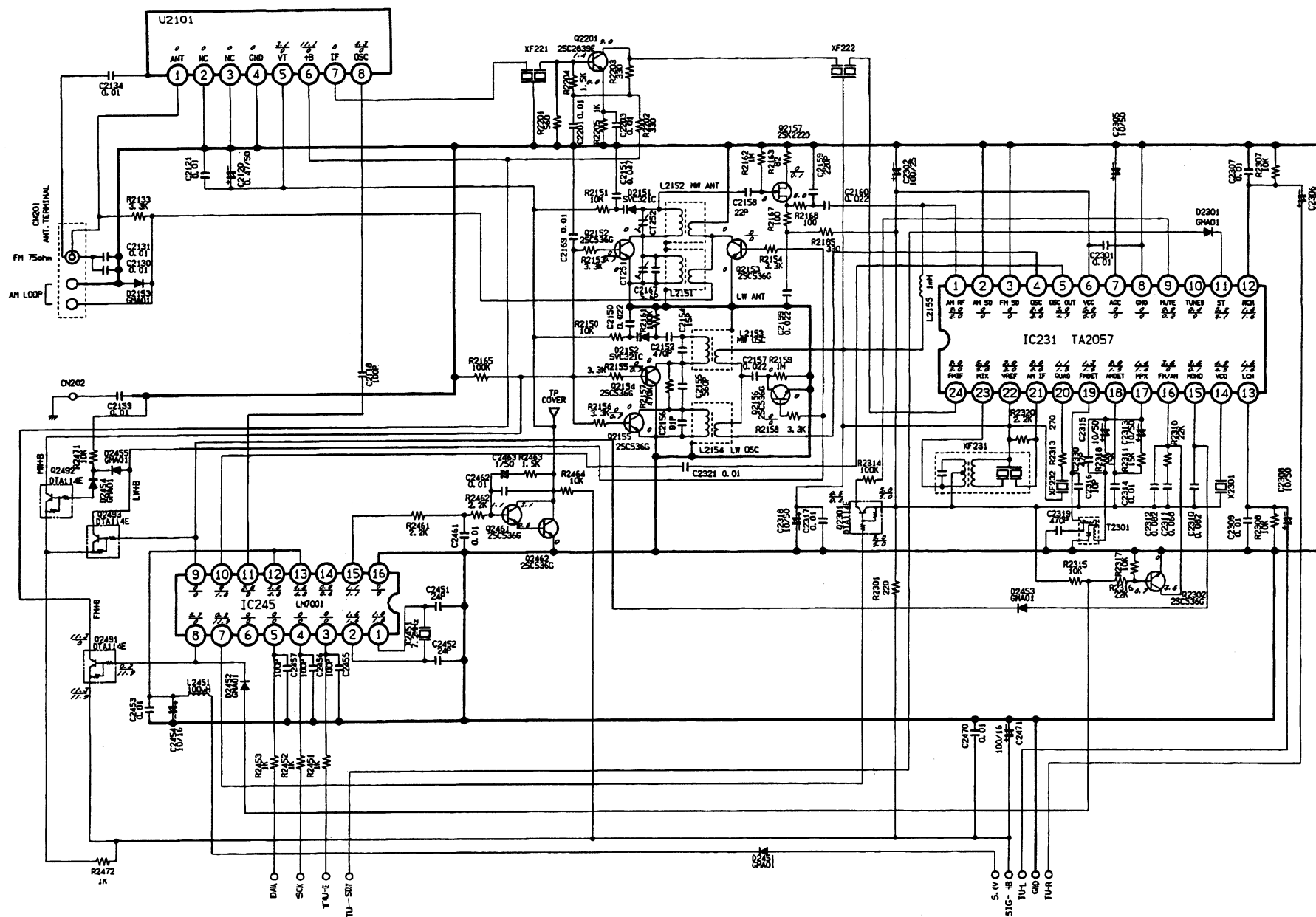
PARTS LIST

MEMO

TAPE MECHANISM (TM-18TM-SP)

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
101	645 009 7072	HL WASHER CUT 1.4X3.1X0.5MM	166	645 009 7744	NYLON WASHER 2.1X3.5X0.5MM
102A	645 012 1623	ASSY, TAKE-UP REEL(R)	167A	645 013 6214	ASSY, FLYWHEEL(F)
102B	645 014 6640	ASSY, TAKE-UP REEL(R)	167B	645 014 6696	FLYWHEEL(F) ASSY
103	645 012 1593	BT SPRING, BACK TENSION	168A	645 009 6990	MAIN BELT
104	645 012 1616	ASSY, TAKE-UP REEL(F)	168B	645 009 6983	MAIN BELT
105	645 012 1609	BT SPRING(F), BACK TENSION	169A	645 009 7751	NYLON WASHER 2.05X3.5X0.5MM
106	645 012 1555	FF GEAR	170A	645 013 6221	ASSY, FLYWHEEL(R)
107	645 012 1440	PACK SPRING	171A	645 012 1753	CH SLIDE LEVER
108	645 012 2774	C TAPP M2X3 SPECIAL	172A	645 012 1913	S TAMP TAPP SCREW M2X5
109	645 012 1524	ASSY, PINCH ROLLER ARM(F)	173A	645 012 1357	WIRE CLAMP
110	645 012 1395	P ARM(F) SPRING	174A	645 009 6907	RELAY BOARD
111	645 009 7768	HL WASHER 2.3X3.8X0.13MM	175A	645 012 1487	SHIELD PLATE
112	645 012 1851	HL WASHER CUT 1.8X4X0.5MM	176A	645 009 7737	P WASHER CUT 0.85X2.8X0.25MM
113	645 012 1906	C TAPP SCREW M2X5	177A	645 009 7607	RELAY PULLEY
114A	645 012 1685	ASSY, FL METAL(F)	178A	645 009 7614	PULLEY BRACKET ASSY
114B	645 014 6688	FL METAL(F) ASSY	179A	645 009 2312	C TAP SCREW M2X4
115B	645 009 7713	CAMERA S TAP SCREW 6 2X6MM	180	645 012 2514	ASSY, CHASSIS
116B	645 009 7676	E STOPPER SPRING(F)	181	645 012 1500	ASSY, HEAD PANEL(B)
117B	645 009 8017	E STOPPER COLLAR	182	645 012 1470	HEAD PANEL SPRING
118B	645 009 7690	E STOPPER A(F)S	183	645 009 8895	PANEL COLLAR
119B	645 009 7638	E STOPPER B(F)	184A	645 012 1463	HEAD PANEL(A)
120A	645 009 7621	LOCK LEVER	184B	645 009 6945	HEAD PANEL(A)
120B	645 009 7652	LOCK LEVER(R)	185	645 012 1371	RC SPRING
121A	645 009 7669	E LEVER SPRING(F)	186	645 009 7720	CAMERA S TAP SCREW 6 2X5MM
121B	645 009 7645	E LEVER SPRING(R)	187B	645 009 6952	HEAD BASE
122	645 012 1746	LOCK LEVER COLLAR	188B	645 009 6914	PINCH ROLLER SPRING
123	645 009 7706	C TAP BIND SCREW 2.3X10MM	189B	614 208 4052	HEAD, R/P
131	645 012 1425	PLUNGER HOLDER	190B	645 009 1551	AZIMUTH SPRING
132	645 013 6238	SOLENOID	191B	645 009 7034	AZIMUTH SCREW 2X8.5MM
133	645 012 1418	PLUNGER	192B	645 010 9232	LUG PLATE
134	645 012 1845	P BASE STUD	193B	645 009 7058	(+)(-)CAP SCREW 2X9.5MM
135	645 013 6269	DIODE, DSF10C	194B	645 009 7041	(+)(-)CAP SCREW 2X11MM
136A	645 013 6245	CONNECTOR 9P	195B	614 021 8831	MAGNETIC HEAD, AC-E
136B	645 013 6252	CONNECTOR 11P	196B	645 009 6891	E HEAD SPRING
137	645 012 1821	P BASE, P.W. BOARD	197B	645 012 1906	C TAPP SCREW M2X5
138	645 012 1852	LEAF SWITCH, F. FWD/REV	198B	645 009 6921	TAPE GUIDE
139	645 012 1869	LEAF SWITCH, PLAY	201A	645 009 7027	CAMERA TS M SCREW 1.7X3MM
140	645 013 6276	HALL IC LB8051A	202A	645 012 1340	CHP LEVER COLLAR
141	645 009 2312	C TAP SCREW M2X4	203A	645 012 1388	CHP LEVER
142	645 012 1838	IC PROTECTOR	204A	645 012 1517	PINCH ROLLER SPRING
143	645 011 1631	LEAF SWITCH, PACK/CROZ/ UN-REC	205A	645 012 1494	ASSY, HEAD BASE
144	645 012 1562	RF TRIGGER ARM	206A	645 012 1364	SPACER
145	645 012 1937	HL WASHER CUT 2.1X5X0.4MM	207A	645 012 1890	TAMS SCREW M2X5
146	645 012 1814	TRIGGER ARM SPRING	208A	645 012 1920	(+)(-)SCREW(SMALL) M2X6
147A	645 012 1654	RF PULLEY ARM SPRING	209A	614 236 9197	HEAD, PLAY
148A	645 012 1678	ASSY, RF CLUTCH	210A	645 012 1883	HEAD COLLAR SCREW(S)
148B	645 014 6664	ASSY, RF CLUTCH	211A	645 009 7003	EJECT STOPPER B(R)
151A	645 012 1647	ASSY, T GEAR ARM(R)	212A	645 009 7010	EJECT STOPPER A(R)S
152A	645 012 1586	TG ARM(R) SPRING	213A	645 009 8017	EJECT STOPPER COLLAR
153A	645 012 1548	T GEAR	214A	645 009 7683	EJECT STOPPER SPRING(R)
154	645 012 1777	N TRIGGER ARM	215A	645 009 7713	CAMERA S TAP SCREW 6 2X6MM
155	645 012 1630	ASSY, T GEAR ARM(F)	216A	645 012 1692	ASSY, FL METAL(R)
156	645 012 1548	T GEAR	217A	645 012 1906	C TAPP SCREW M2X5
157A	645 012 1579	TG ARM(F) SPRING	218A	645 009 7768	HL WASHER 2.3X3.8X0.13MM
157B	645 009 6969	TG ARM(F) SPRING	219A	645 009 8031	HL WASHER 1.7X3.5X0.5MM
158	645 012 1760	N GEAR	220A	645 012 1401	P ARM(R) SPRING
159	645 012 1876	E RING 2MM	221A	645 012 1531	ASSY, PINCH ROLLER ARM(R)
160A	645 012 1791	RF CAM GEAR	231	645 009 3814	MOTOR COLLAR SCREW
160B	645 009 8024	RF CAM GEAR	232	645 013 6184	MOTOR BRACKET
161	645 012 1944	HLW CUT 1.55X3.5X0.5MM	233	645 013 6368	NAT
162	645 012 1784	P KICK LEVER	234	645 009 2398	ANTI VIBRATION FELT MAT
163	645 012 1432	PK LEVER SPRING	235	645 009 7065	(+)(-)C TAPPING SCREW 2X5MM
164	645 012 1937	HL WASHER CUT 2.1X5X0.4MM	236	645 009 1582	MOTOR RUBBER
165A	645 012 1661	RF BELT	237	614 275 3279	MOTOR ASSY
165B	645 009 6976	RF BELT			

SCHEMATIC DIAGRAM (TUNER)

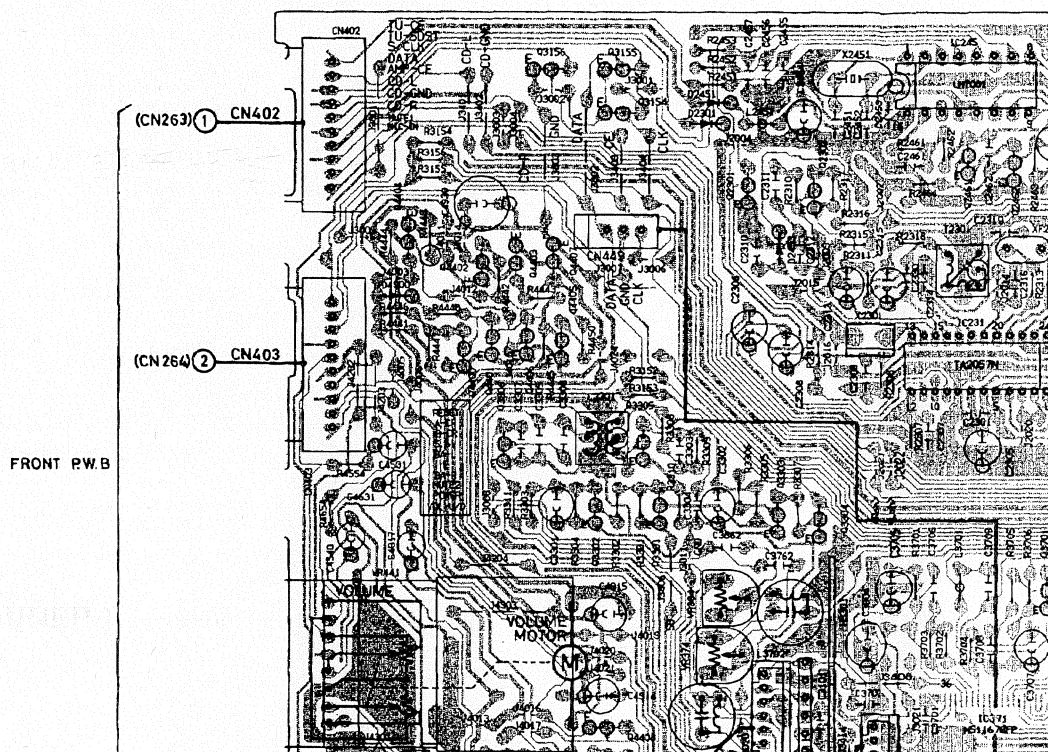


(TO FRONT PWB)

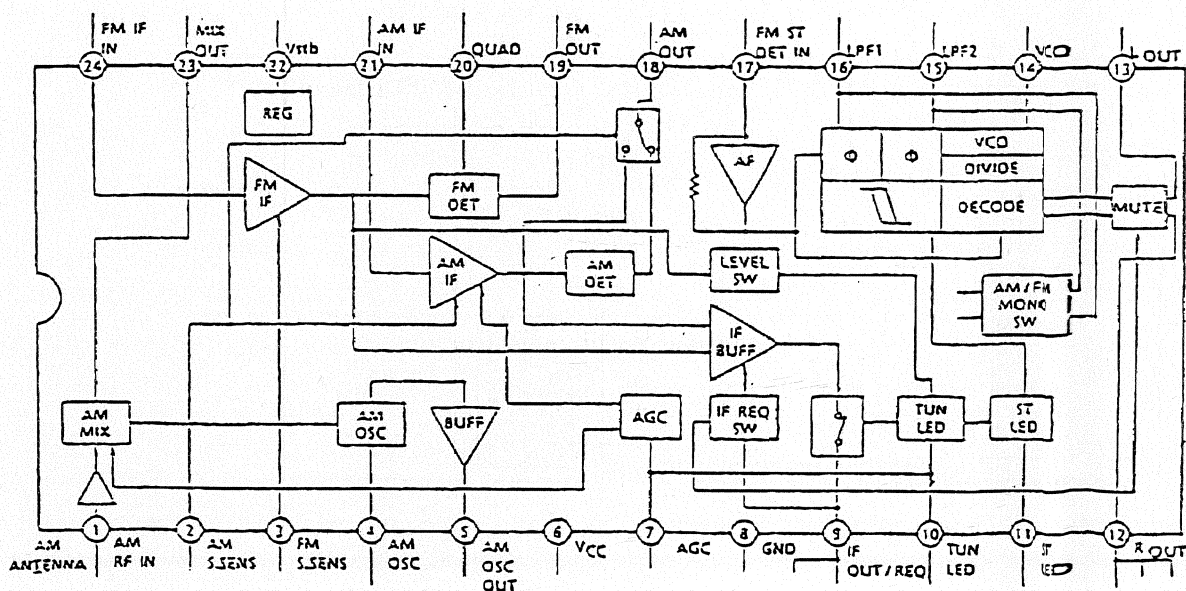
$$VOLTAGE = \frac{FM\ 98.0MHz}{MW\ 999kHz}$$

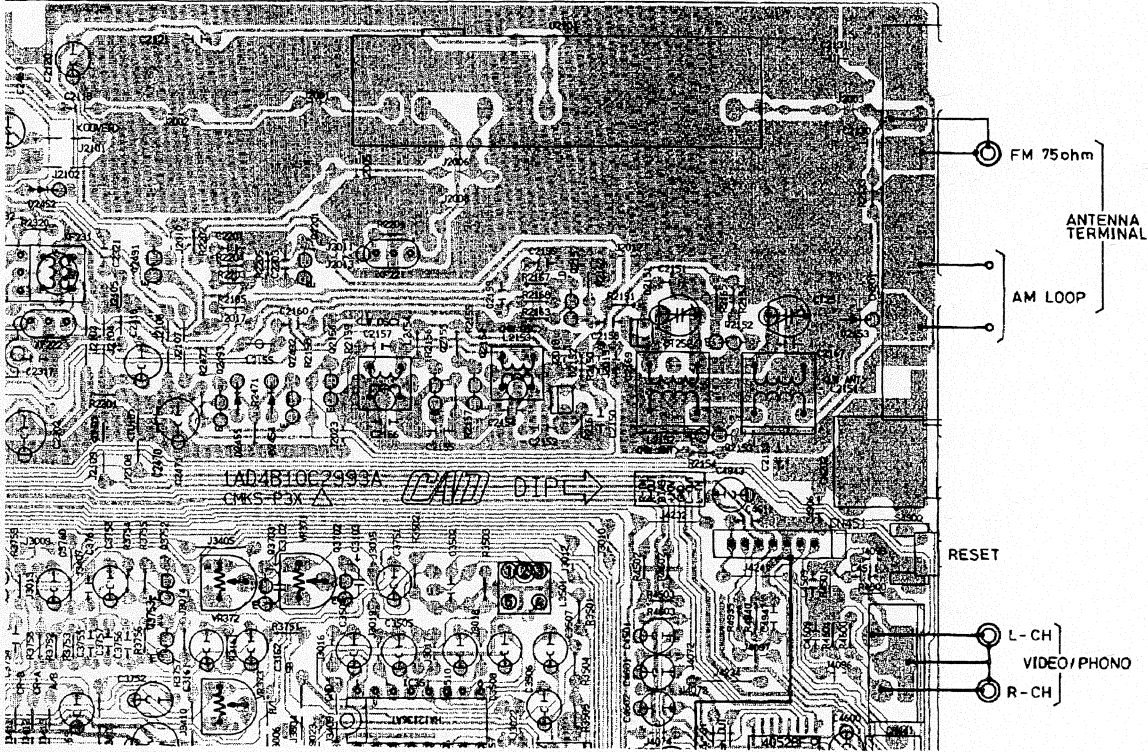
(TO PRE AMP SECTION)

WIRING DIAGRAM (TUNER)

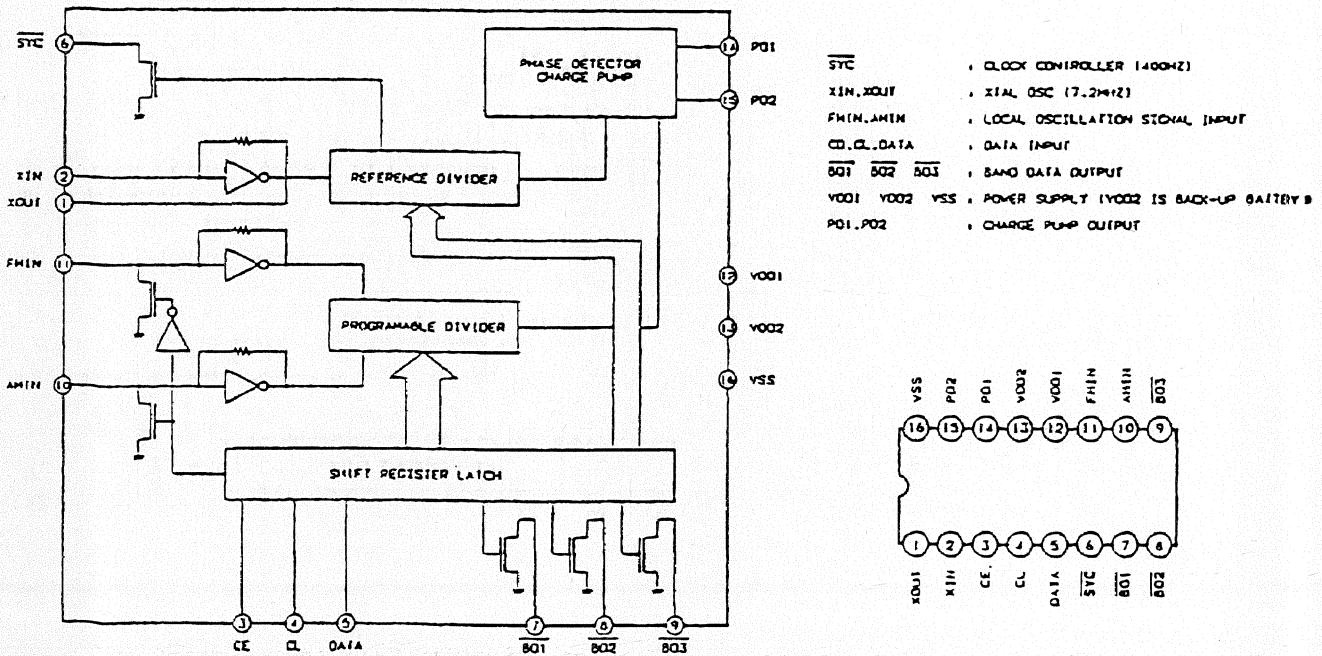


IC231 TA2057 (AM/FM IF & FM MPX)

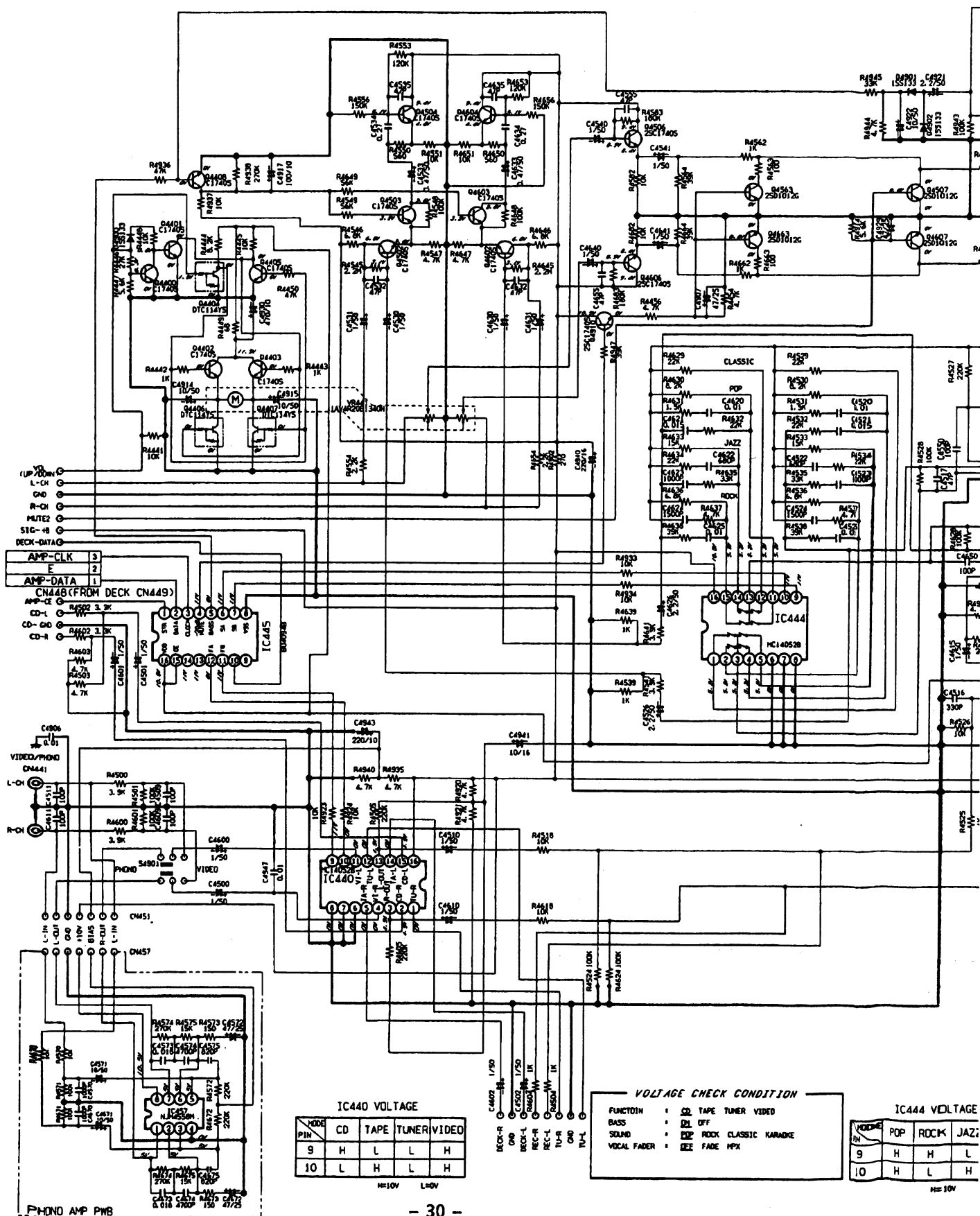


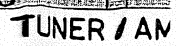


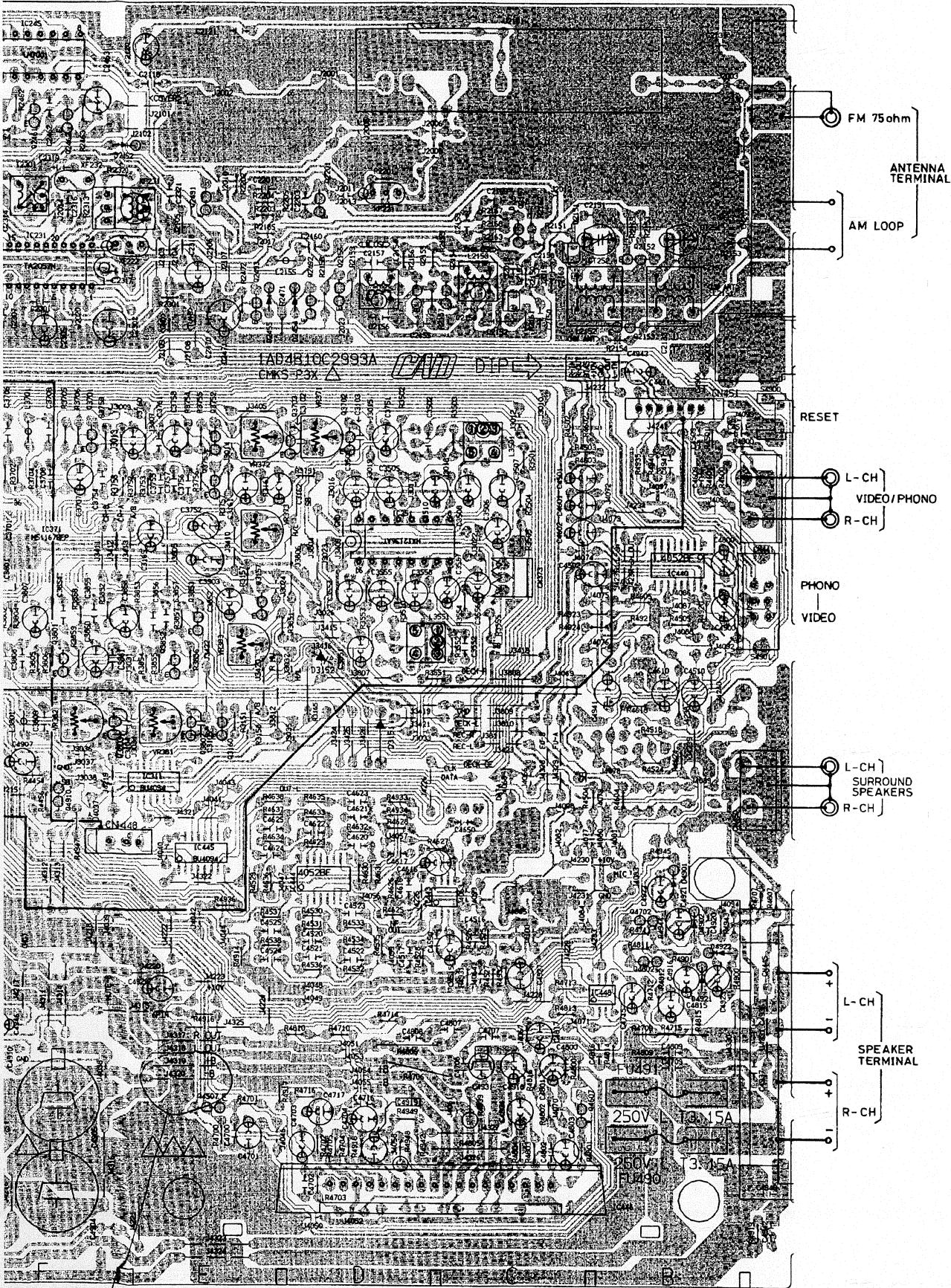
IC245 LM7001 (PLL SYNTHSIZER)



SCHEMATIC DIAGRAM (AMP.)



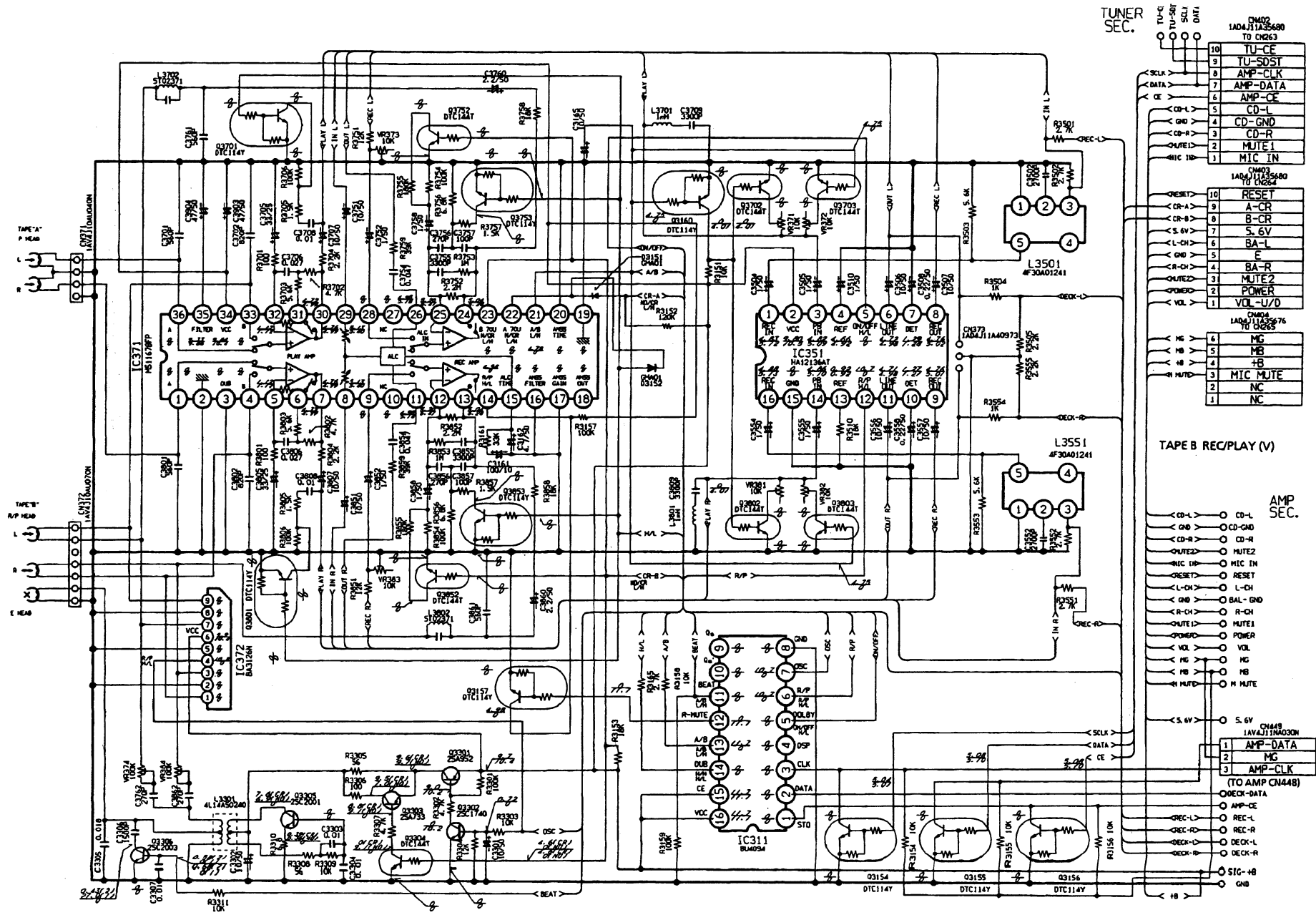




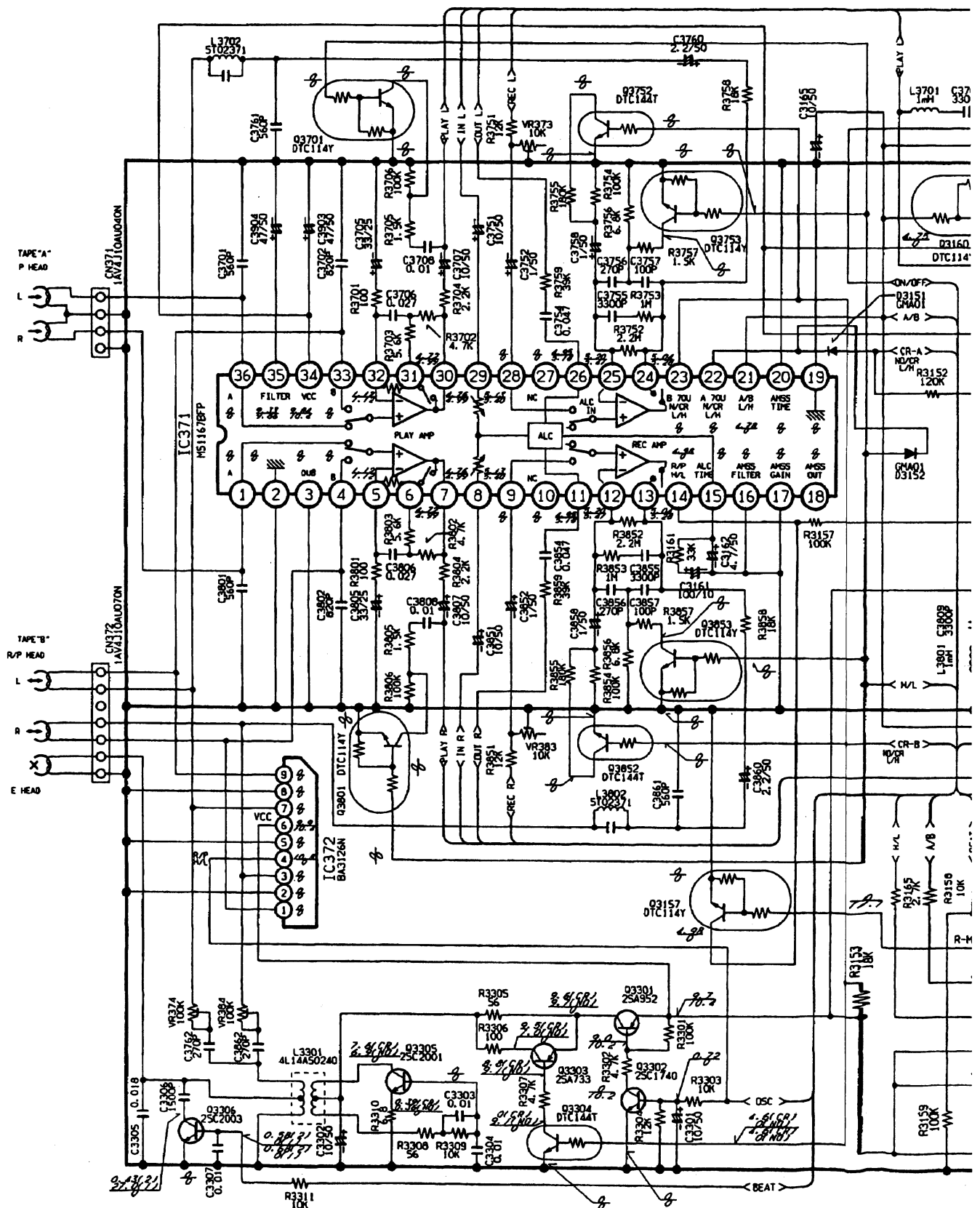
IP/TAPE DECK P.W.B

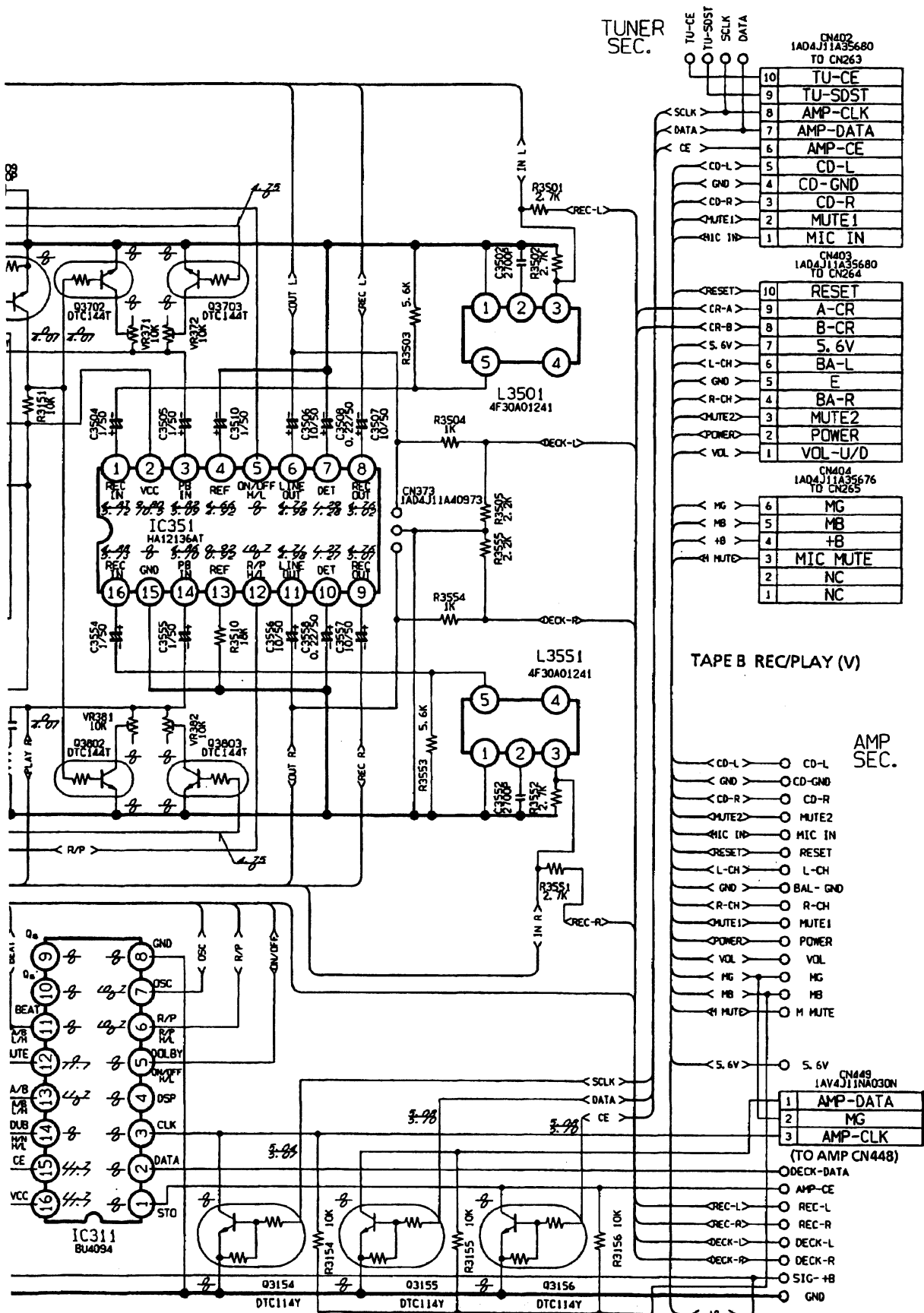
*For all links
replaced*

SCHEMATIC DIAGRAM (TAPE DECK)

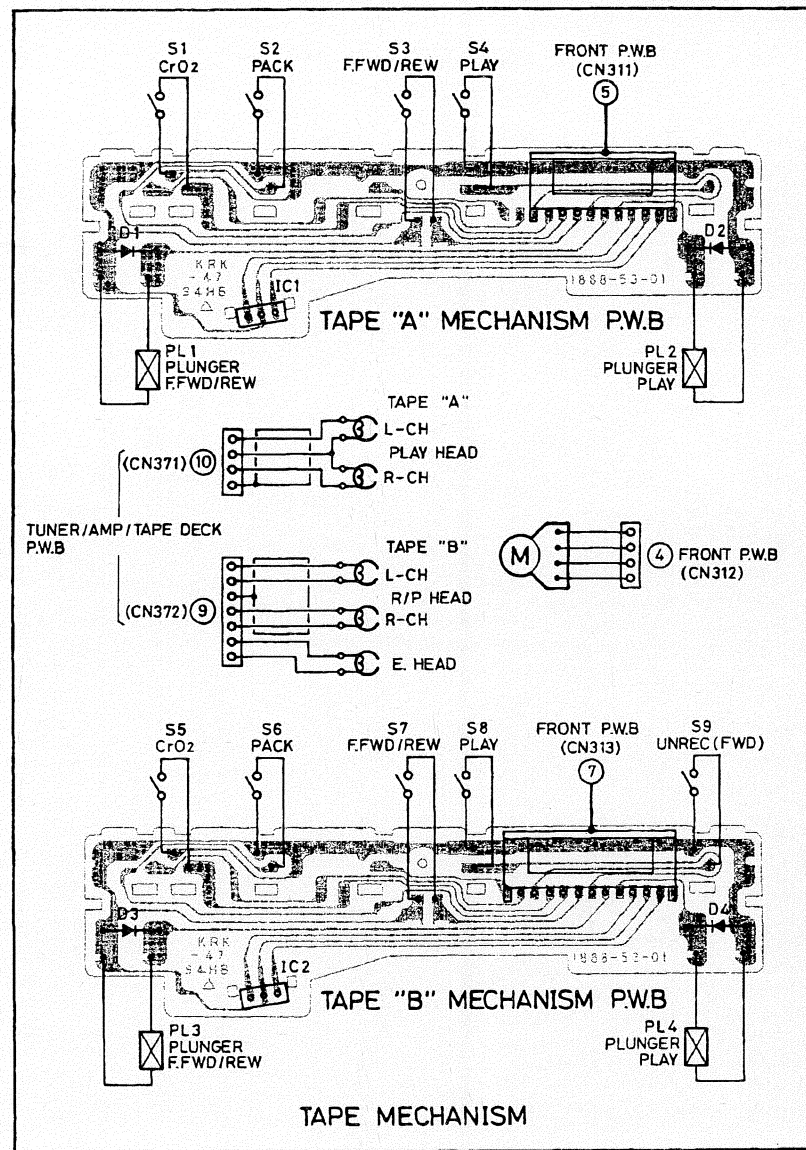
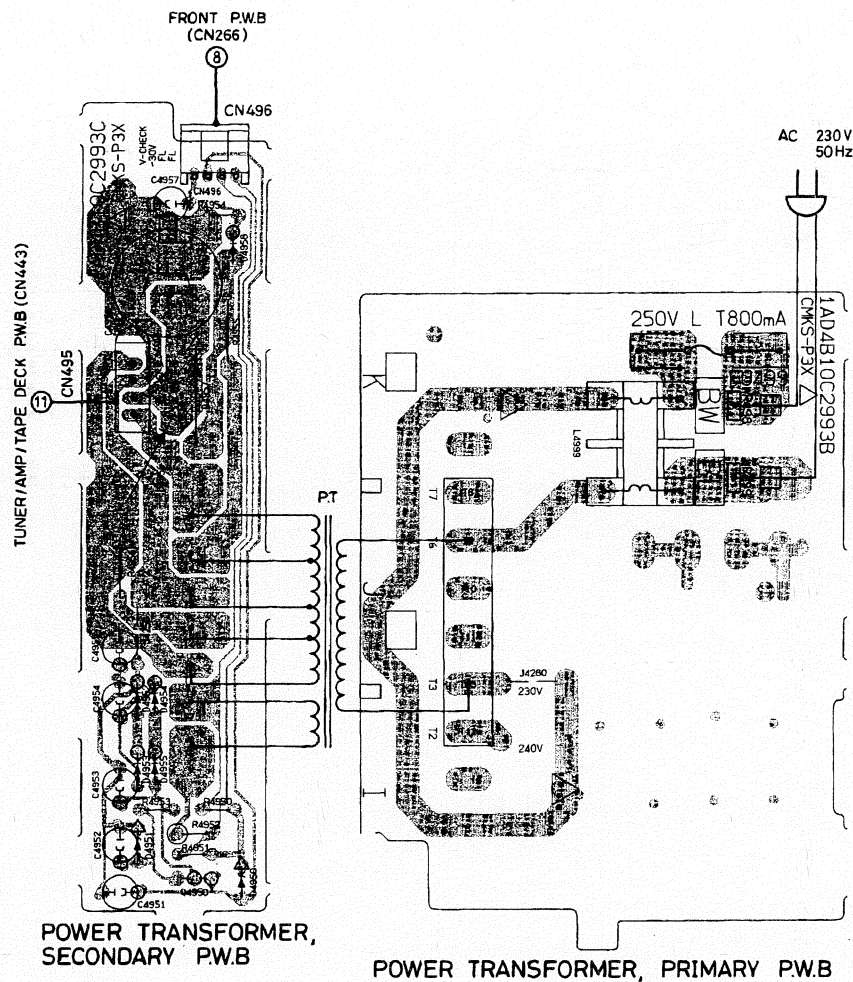


SCHEMATIC DIAGRAM (TAPE DECK)

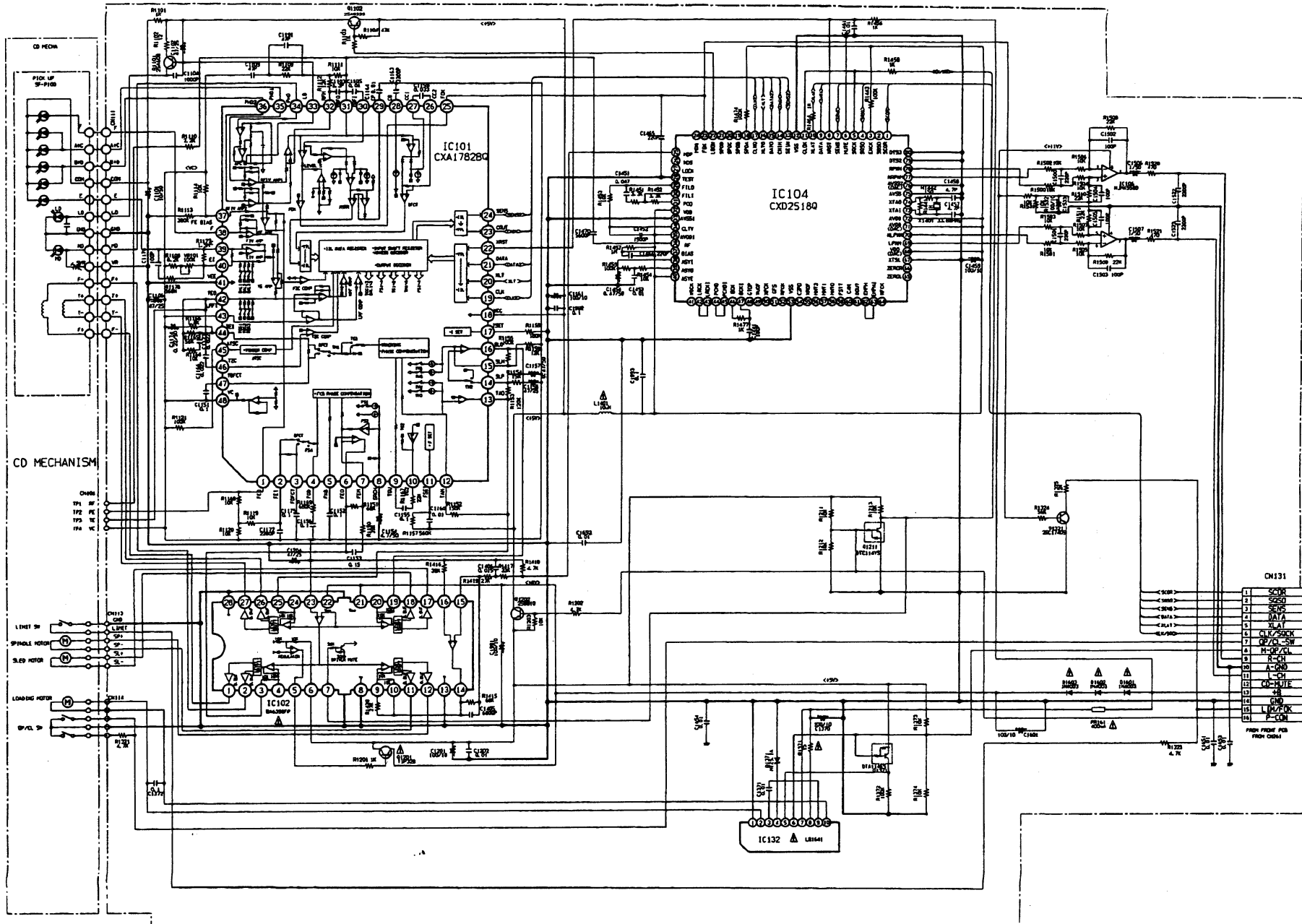


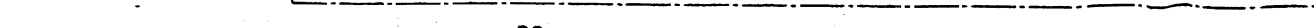


WIRING DIAGRAM (POWER TRANSFORMER & TAPE MECHANISM P.W.B)

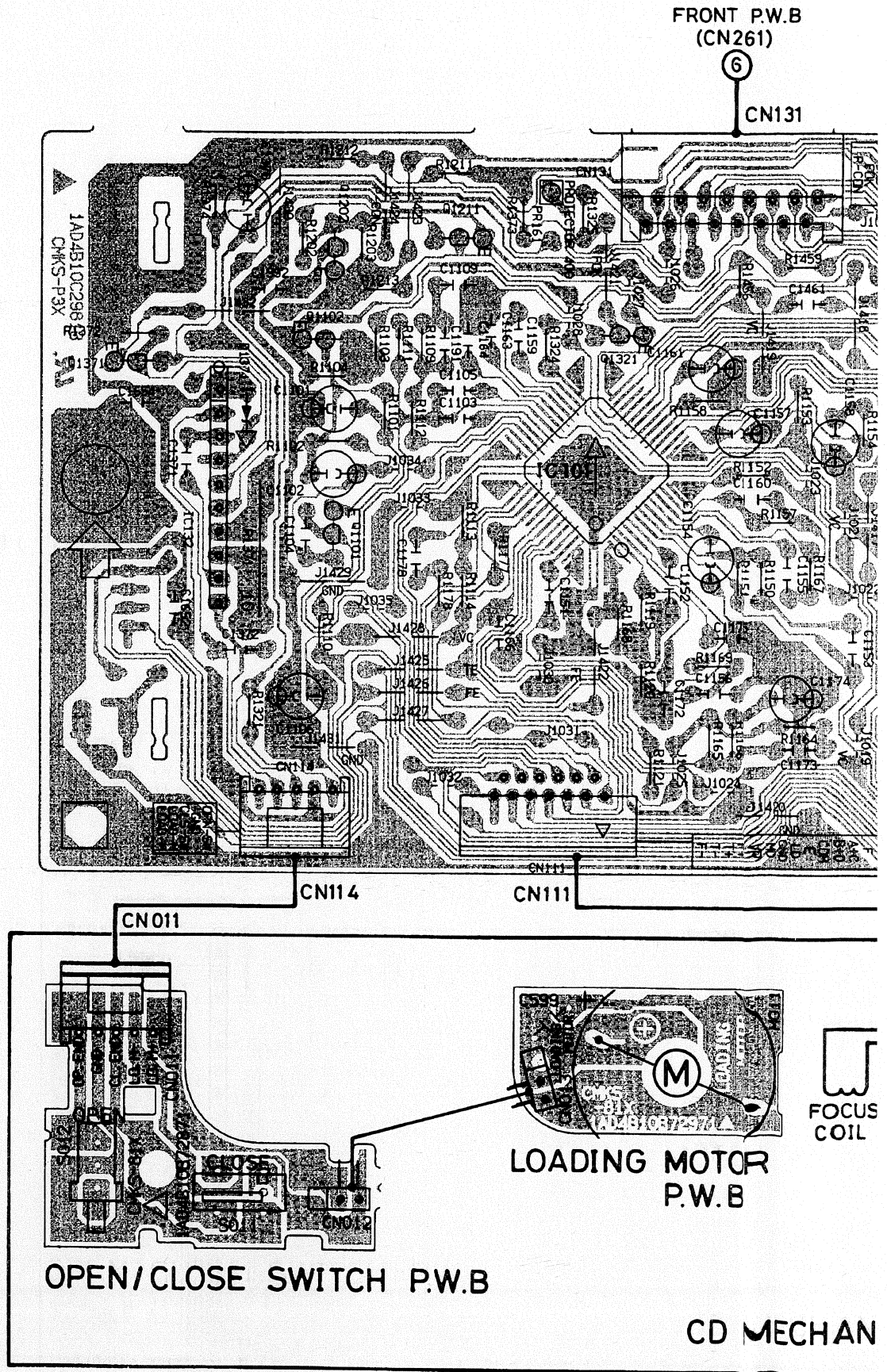


SCHEMATIC DIAGRAM (CD)-

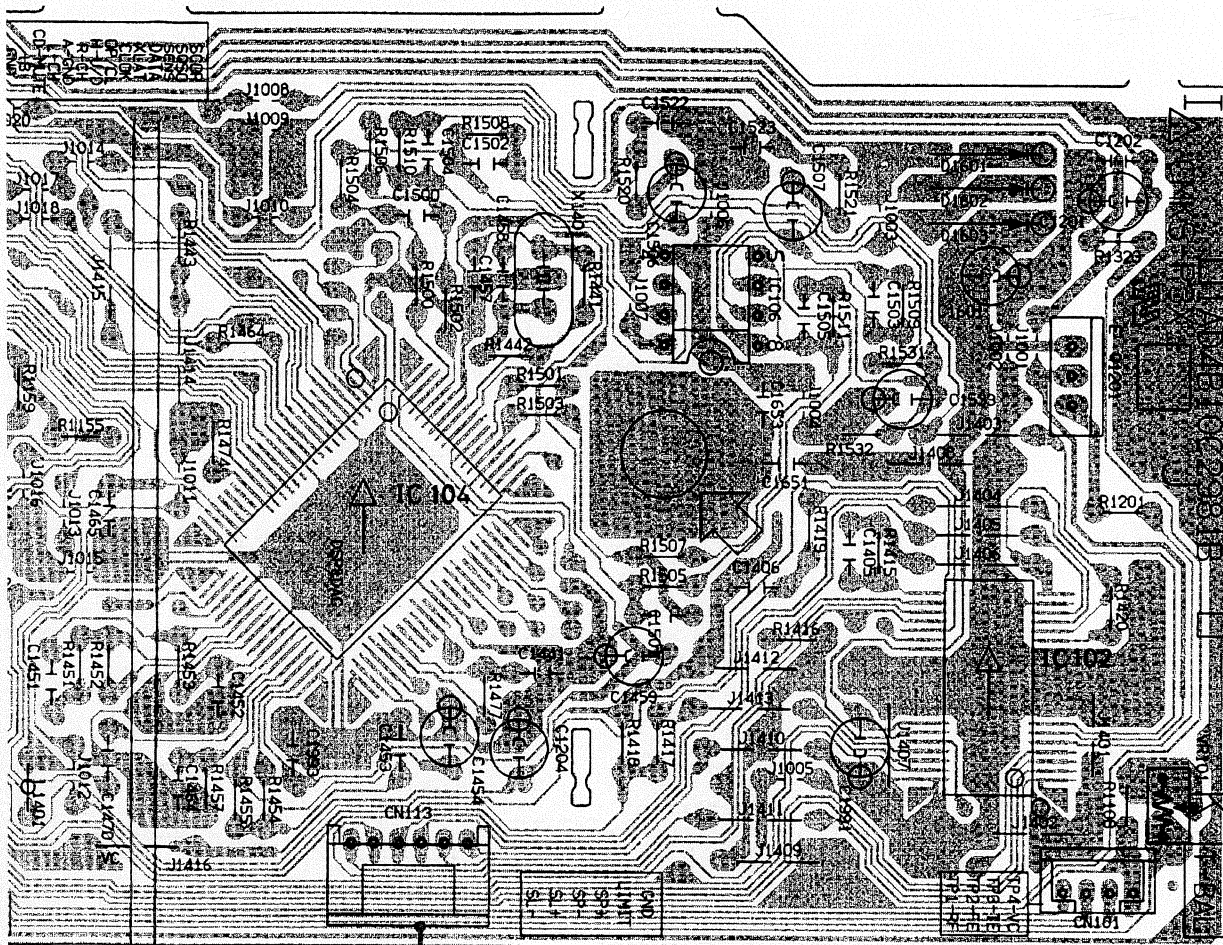




WIRING DIAGRAM (CD)



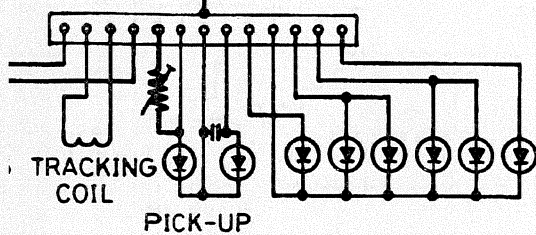
CD P.W.B



CN113

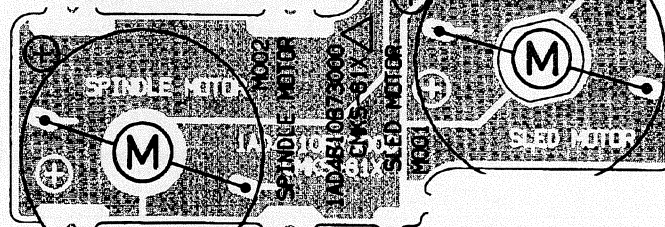
CN111

CN001

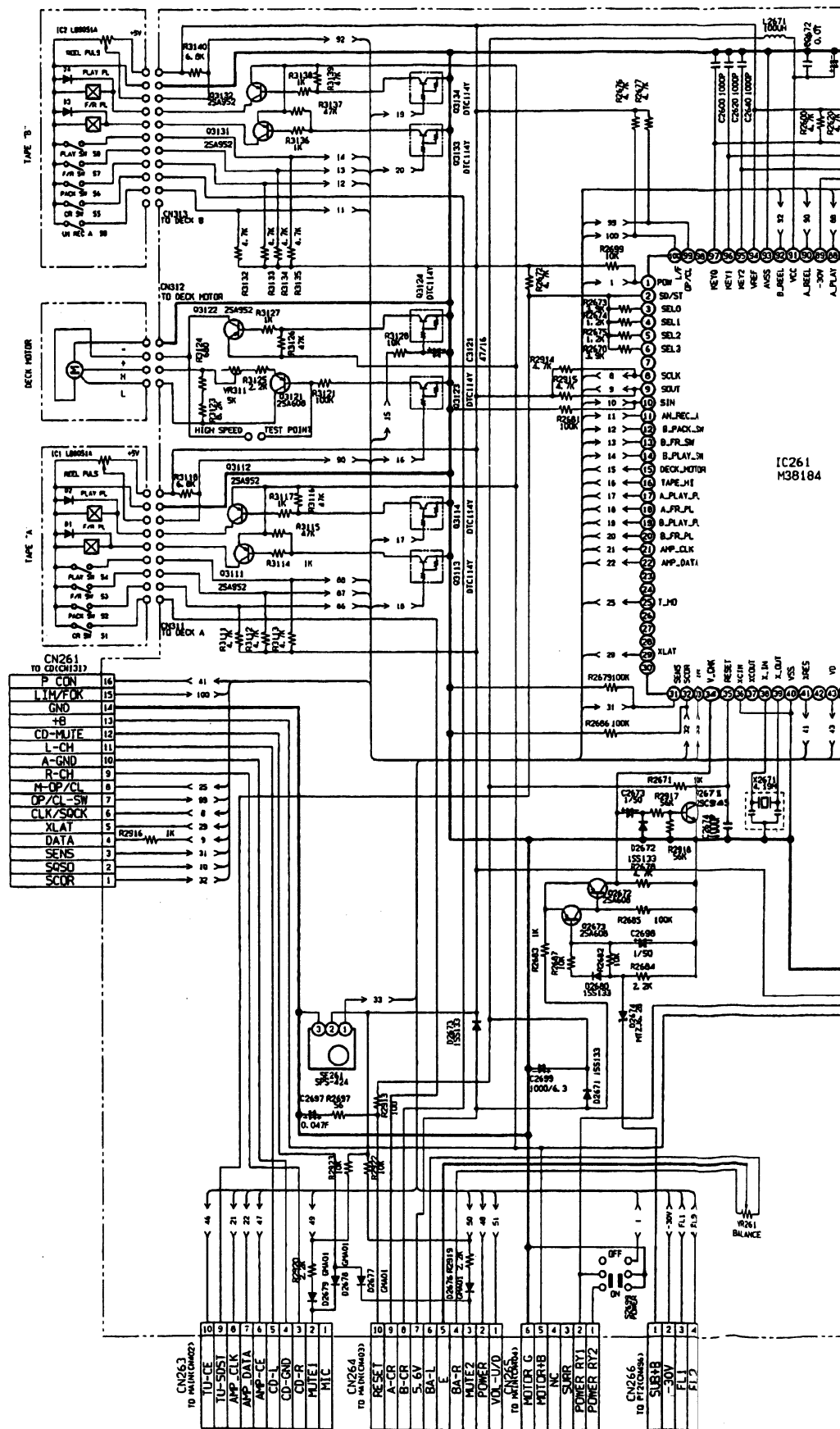


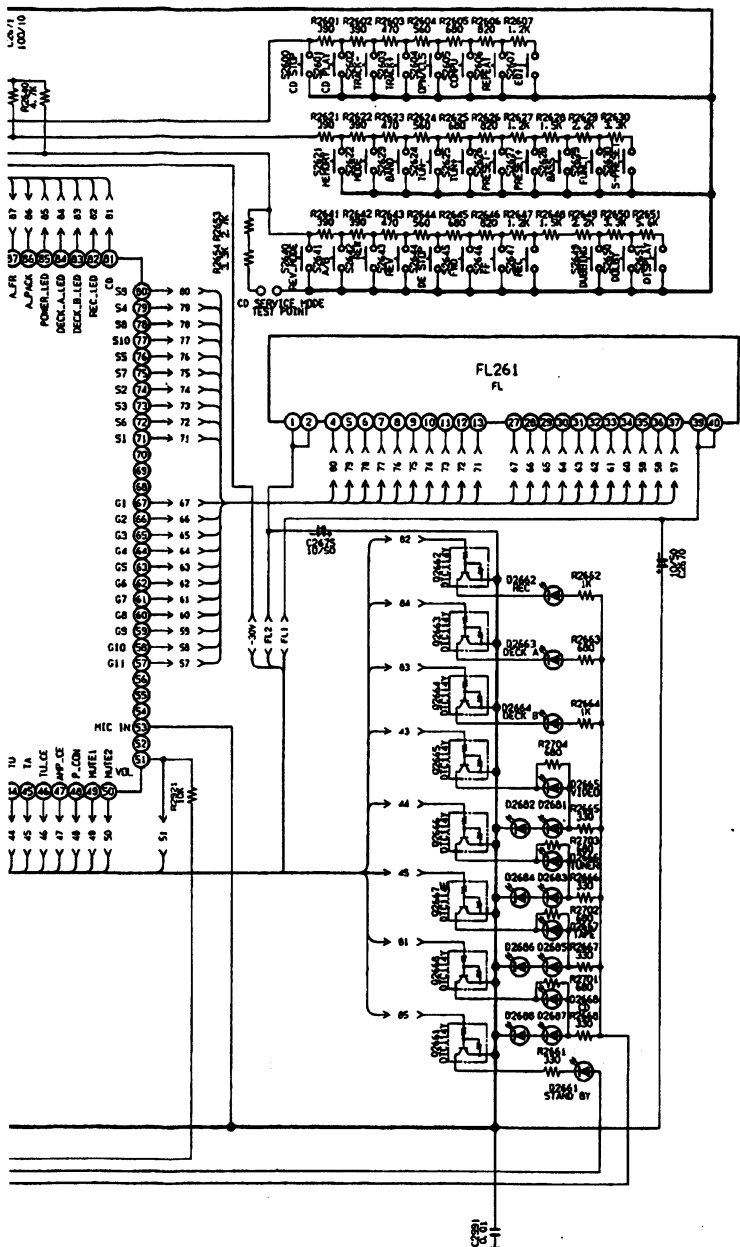
LIMIT

SLED / SPINDLE
MOTOR P.W.B



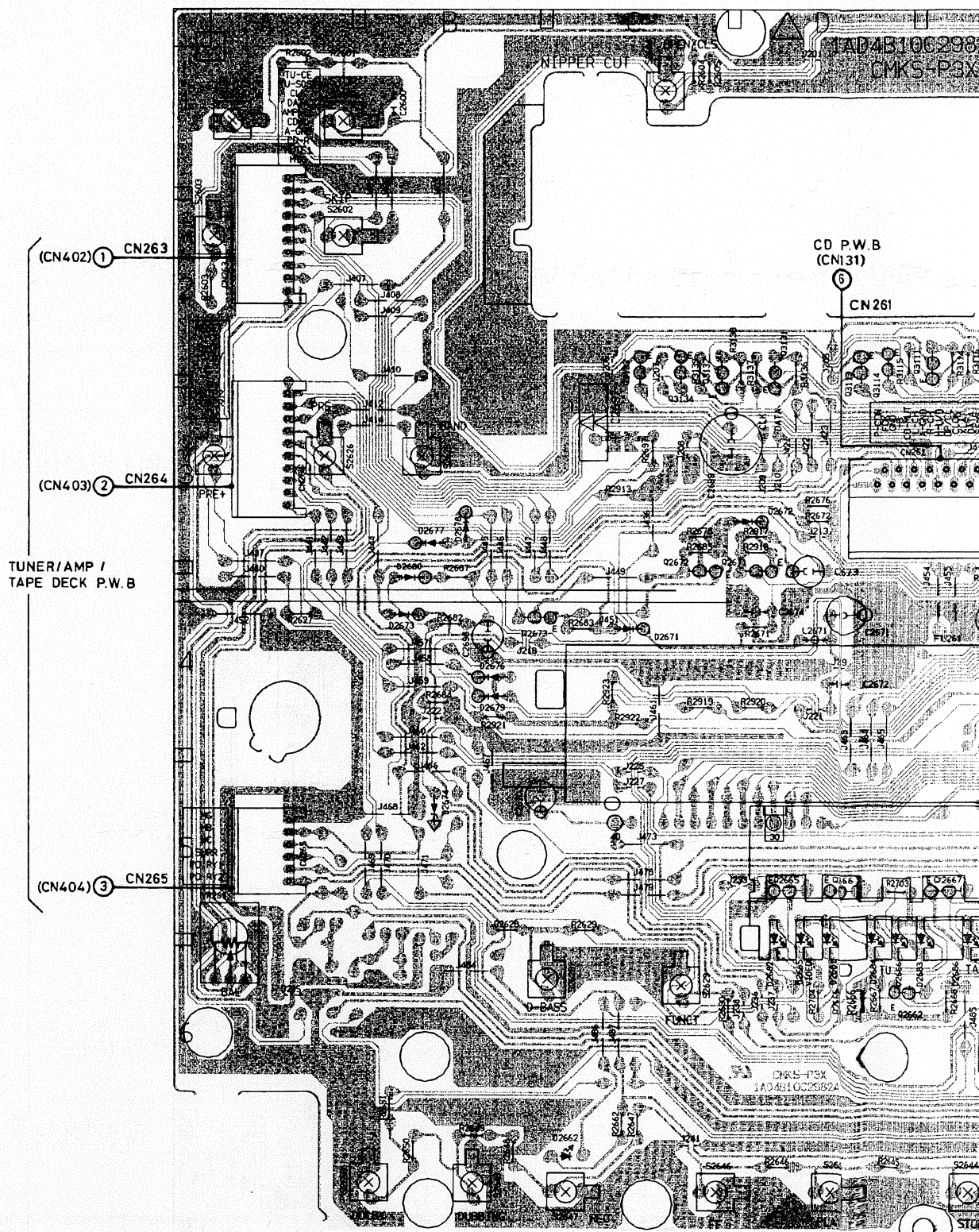
ISM

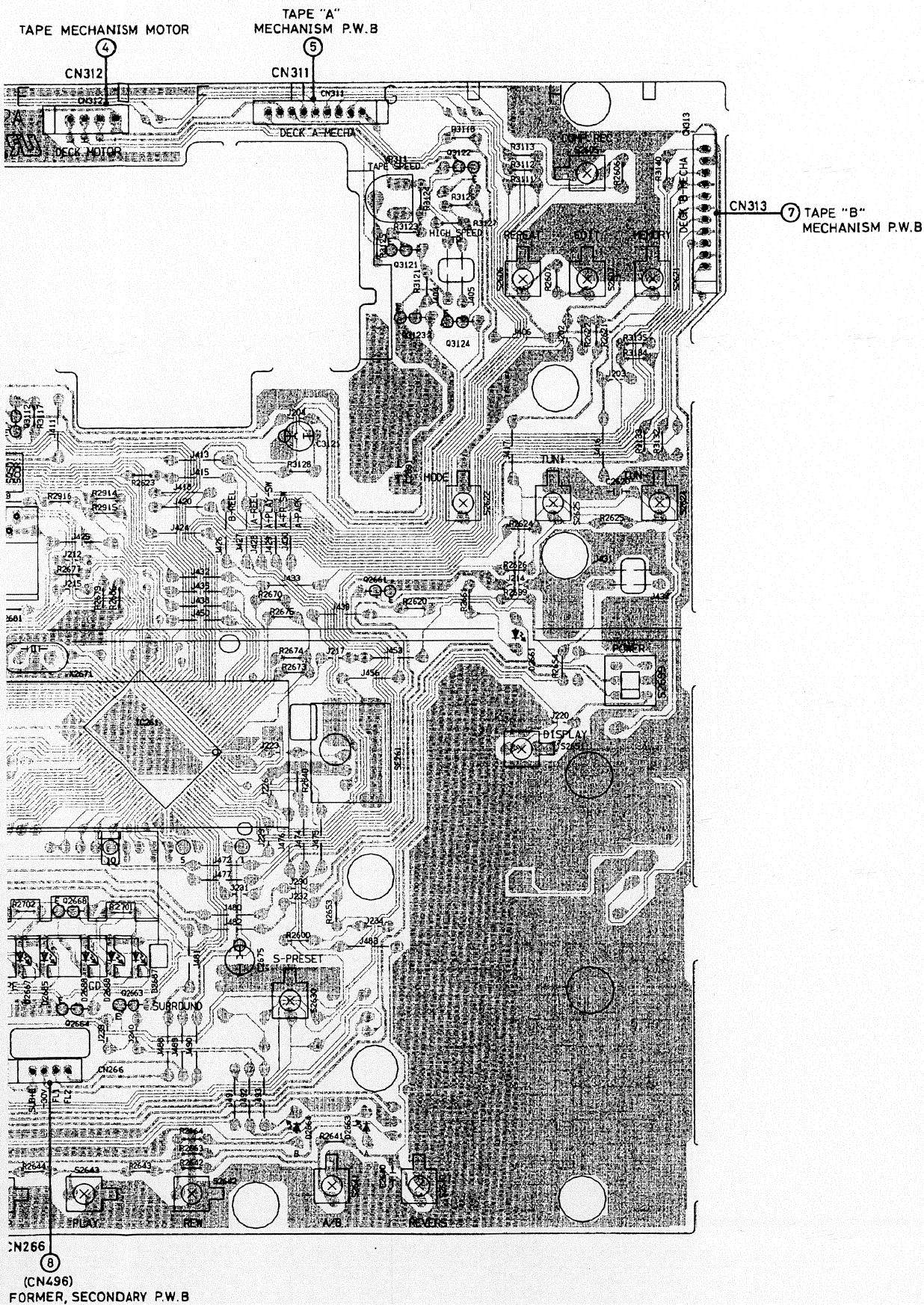




WIRING DIAGRAM (FRONT)

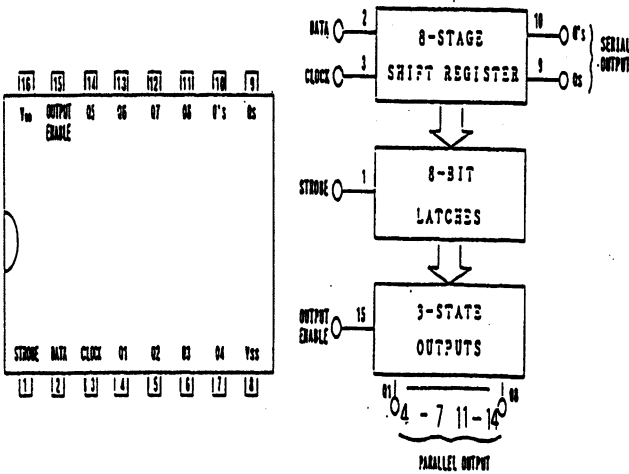
FRONT P.W.B





IC BLOCK DIAGRAM & DESCRIPTION

IC311, BU4094B (8-STAGE SHIFT/STORE REGISTER)

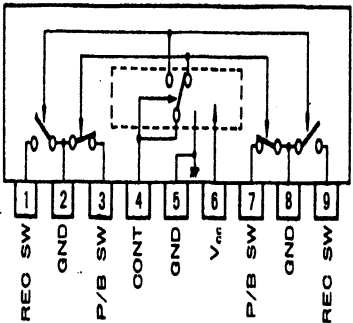


CLOCK	OUTPUT ENABLE	STROBE	DATA	PARALLEL OUTPUTS		SERIAL OUTPUTS	
				Q1	Qn	Qs	Q's
f	L	x	x	Z	Z	Q7	No Chg.
L	L	x	x	Z	Z	No Chg.	Qs
f	H	L	x	No Chg.	No Chg.	Q7	No Chg.
f	H	H	L	L	Qn-1	Q7	No Chg.
f	H	H	H	H	Qn-1	Q7	No Chg.
L	H	x	x	No Chg.	No Chg.	No Chg.	Qs

Z=High Impedance
x=Don't Care

IC BLOCK DIAGRAM & DESCRIPTION

IC372 BA3126N (HEAD CHANGEOVER SWITCHES)

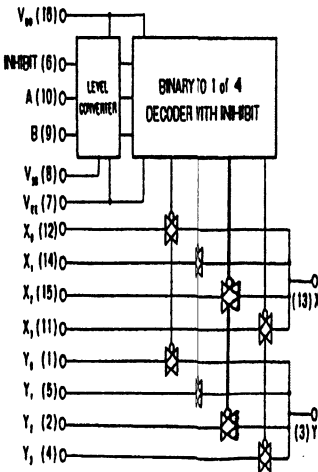


IC440, MC14052BF (FUNCTION)
IC444

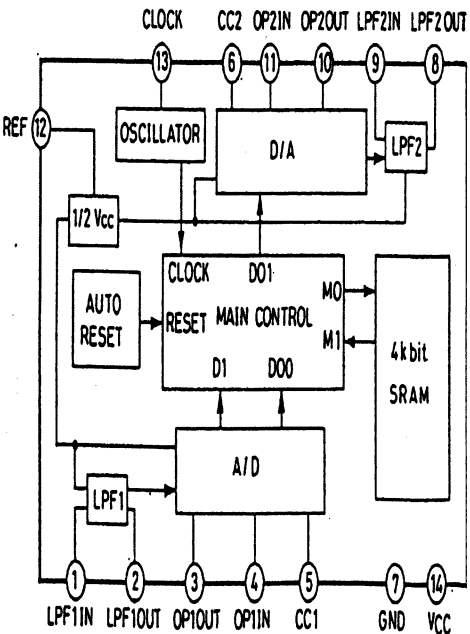
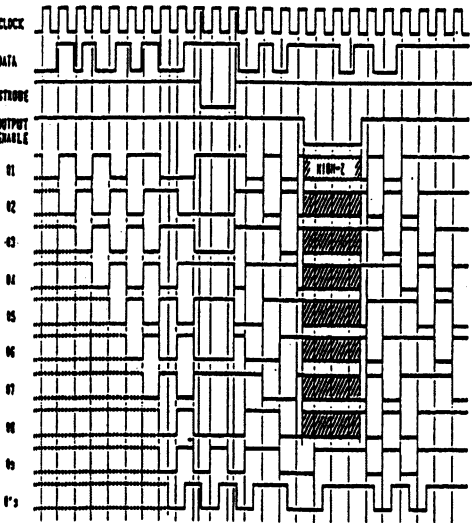
Truth Table

INHIBIT	A	B	ON SWITCH
L	L	L	X0 Y0
L	H	L	X1 Y1
L	L	H	X2 Y2
L	H	H	X3 Y3
H	X	X	NONE

X : Don't Care

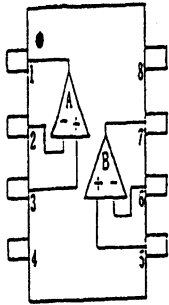


IC401 M65844P (DIGITAL ECHO)



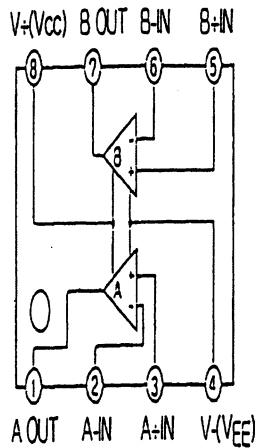
IC BLOCK DIAGRAM & DESCRIPTION

IC443, NUM4538M (OP. AMP.)
IC448

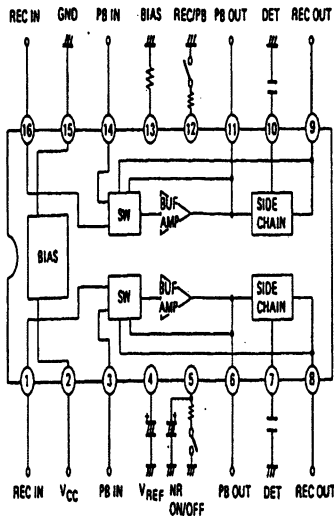


1. A OUTPUT
2. A-INPUT
3. A+INPUT
4. V-
5. B+INPUT
6. B-INPUT
7. B OUTPUT
8. V+

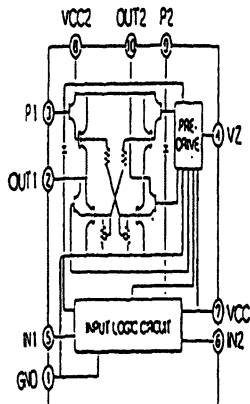
IC402, NUM4538D or LA6458D (OP. AMP.)
IC106



IC351 HA12136A (DOLBY B-TYPE NOISE REDUCTION)



IC132 LB1641 (RECORD/PLAY SWITCHING)



Input		Output		Action
IN1	IN2	OUT1	OUT2	
0	0	0	0	Brake
1	0	1	0	NormalReverseRotary
0	1	0	1	ReverseNormalRotary
1	1	0	0	Brake

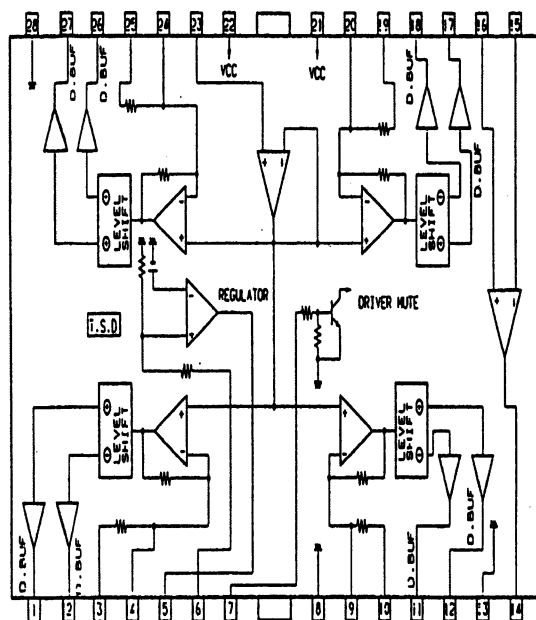
IC BLOCK DIAGRAM & DESCRIPTION

IC101 CXA1782BQ (SERVO SIGNAL PROCESSOR)

No.	Name	I/O	Description	No.	Name	I/O	Description
1	FEO	O	Focus error amplifier output.	25	FOK	O	Focus OK comparator output.
2	FEI	I	Focus error input.	26	CC2	O	Input pin for the DEFECT bottom hold output capacitance-coupled.
3	DFDCT	I	Capacitor connection pin for detect time constant.	27	CC1	I	DEFECT bottom hold output.
4	FGD	I	Ground this pin through a capacitor when decreasing the focus servo high-frequency.	28	CB	I	Connection pin for DEFECT bottom hold capacitor.
5	FLB	I	External time constant setting pin for increasing the focus servo low frequency.	29	CP	I	Connection pin for MIRR hold capacitor. MIRR comparator non-inverted input.
6	FEO	O	Focus drive output.	30	RFI	I	Input pin for the RF summing amplifier output capacitance-coupled.
7	FEM	I	Focus amplifier negative input.	31	RFO	O	RF summing amplifier output. Eye pattern check point.
8	SRCH	I	External time constant setting pin for generating focus servo waveform.	32	RFM	I	RF summing amplifier inverted input. The RF amplifier gain is determined by the resistance connected between this pin and RFO pin.
9	TGU	I	External time constant setting pin for switching tracking high-frequency gain.	33	LD	O	APC (Auto Power Control) amplifier output.
10	TG2	I	High cut off frequency setting pin for focus and tracking phase compensation amplifier.	34	PHD	I	APC (Auto Power Control) amplifier input.
11	FSET	I	Tracking amplifier negative input.	35	PHD1	I	RF I-V amplifier inverted input.
12	TAM	I	Tracking drive output.	36	PHD2	I	RF I-V amplifier inverted input.
13	TAO	O	Sled amplifier non-inverted input.	37	FEBIAS	I	Bias adjustment of focus error amplifier.
14	SLP	I	Sled amplifier negative input.	38	F	I	F I-V and E I-V amplifier inverted input.
15	SLM	I	Sled drive output.	39	E	I	F I-V and E I-V amplifier inverted input.
16	SLO	O	Setting pin for Focus search, Tracking jump, and Sled lock current.	40	EI	-	I-V amplifier E gain adjustment.
17	ISSET	I	+5.0V	41	VEE	-	GND
18	VCC	-	+5.0V	42	TEO	O	Tracking error amplifier output.
19	CLK	I	Serial data transfer clock input from CPU.	43	LPFI	I	Comparator input for balance adjustment.
20	XLT	I	Latch input from CPU.	44	TEI	I	Tracking error input.
21	DATA	I	Serial data input from CPU.	45	ATSC	I	Window comparain input for ATSC detection.
22	XRST	I	Reset input; resets at Low.	46	TZC	I	Tracking zero-cross comparator input.
23	C.OUT	O	Track number count signal output.	47	VC	O	(VCC + VEE) / 2 DC voltage output.
24	SENS	O	Outputs FZC, DFCT, TZC, gain, balance, and others according to the command from CPU.				

IC BLOCK DIAGRAM & DESCRIPTION

IC102 BA6398FP (POWER DRIVER)



T.S.D : THERMAL SHUT DOWN D.BUF : DRIVE BUFFER

No.	NAME	DESCRIPTION
1	CH1-OUT A	DRIVER CH1 (-)
2	CH1-OUT B	DRIVER CH1 (+)
3	CH1-IN A	DRIVER CH1
4	CH1-IN B	NOT USED
5	Tr-B	REGULATOR
6	Vreg OUT	Vreg
7	MUTE	MUTE CONTROL
8	GND	GND
9	CH2-IN B	DRIVER CH2 GAIN
10	CH2-IN A	DRIVER CH2
11	CH2-OUT B	DRIVER CH2(+)
12	CH2-OUT A	DRIVER CH2(-)
13	GND	GND
14	OP OUT	OP. AMP
15	OP IN (-)	OP. AMP
16	OP IN (+)	OP. AMP
17	CH3-OUT A	DRIVER CH3 (-)
18	CH3-OUT B	DRIVER CH3(+)
19	CH3-IN A	DRIVER CH3
20	CH3-IN B	NOT USED
21	VCC	VCC
22	VCC	VCC
23	BIAS IN	BIAS
24	CH4-IN B	NOT USED
25	CH4-IN A	DRIVER CH4
26	CH4-OUT B	DRIVER CH4(+)
27	CH4-OUT A	DRIVER CH4(-)
28	GND	GND

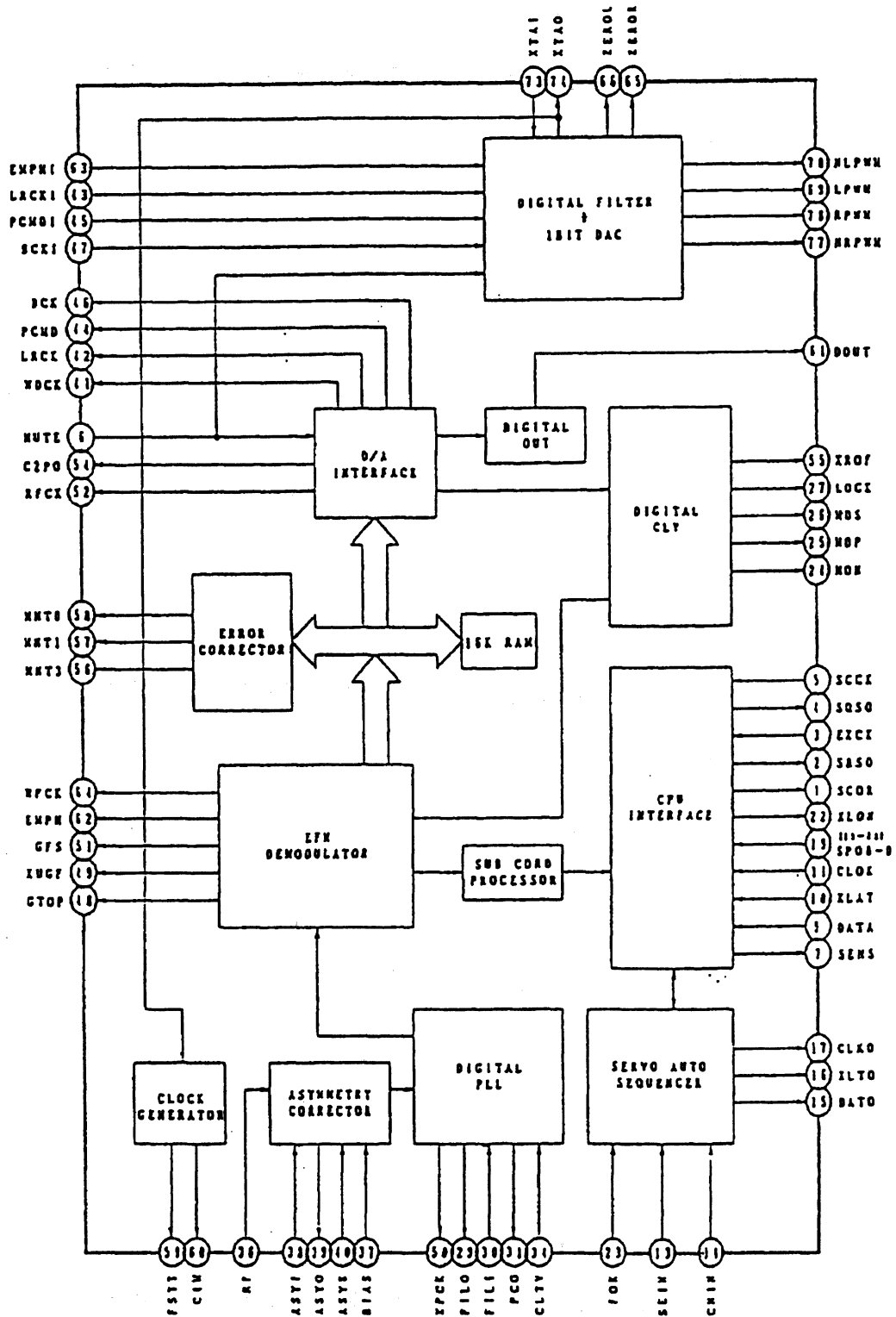
IC BLOCK DIAGRAM & DESCRIPTION

IC104 CXD2518Q (DIGITAL SIGNAL PROCESSOR)

No.	Name	I/O	Description	No.	Name	I/O	Description
1	SCOR	0	Turns "H" when sync SO or S1 is detected.	41	WDCK	0	Not used
2	SBSO	0	Serial output of sub-code P ~ W.	42	LRCK	0	D/A interface for 48-bit slot LR clock (f=FS)
3	EXCK	1	Clock input for reading SBSO.	43	LRCKI	1	Inputs LR clock to DAC.(48-bit slot)
4	SQSO	0	Serial output of SUBQ & SOBIT.	44	PCMD	0	D/A interface. Serial data(2SCOMP,MBS first)
5	SQCK	1	Clock input for reading SQSO.	45	PCMDI	1	Inputs audio data to DAC.(48-bit slot)
6	MUTE	1	"H" at muting, "L" at muting cancel.	46	BCK	0	D/A interface. Bit clock.
7	SENS	0	SENS signal output to CPU.	47	BCKI	1	Inputs bit clock to DAC.(48-bit slot)
8	XRST	1	System reset, "L" at resetting.	48	GTOP	0	Not used
9	DATA	1	Inputs serial data from CPU.	49	XUGF	0	Not used
10	XLAT	1	Latches input from CPU. Serial data latches at falling edge.	50	XPCK	0	Not used
11	CLOCK	1	Inputs serial data transfer clock from CPU.	51	GFS	0	Not used
12	V _{ss}	-	GND.	52	RFCK	0	Not used
13	SEIN	1	Inputs SENS signal from SSP.	53	V _{ss}	-	GND.
14	CNIN	1	Inputs track jump count signal	54	CZPO	0	Not used
15	DATO	0	Outputs serial data to SSP	55	XROF	0	Not used
16	XLTO	0	Outputs latches to SSP. Serial data latches at falling edge.	56	MNT3	0	Not used
17	CLKO	0	Outputs serial data transfer clock to SSP.	57	MNT1	0	Not used
18	TEST2	1	Pin for TEST. Normal used state: V _{DD} .	58	MNT0	0	Not used
19	SPOB	1	Not used	59	FSTT	0	Not used
20	SPOC	1	Not used	60	CAM	0	Not used
21	SPOD	1	Not used	61	DOUT	0	Not used
22	XLON	0	Interface for extension of M. processor(output.)	62	EMPH	0	Stays "H" for playback disc provided with emphasis or "L" for that without emphasis.
23	FOK	1	Focus OK signal input pin. Used servo auto sequencer with SENS output.	63	EMPH	1	De-emphasis ON/OFF of DAC. "H" at ON, "L" at OFF.
24	MON	0	ON/OFF control signal for spindle motor.	64	WFCK	0	Not used
25	MDP	0	Servo control signal for spindle motor.	65	ZEROL	0	Outputs detection for non-round data. "H" at detection for non-round data (L-ch)
26	MDS	0	Not used	66	ZEROR	0	Outputs detection for non-round data. "H" at detection for non-round data (R-ch)
27	LOCK	0	Not used	67	DTS1	1	Normal used state: "L".
28	TEST	1	GND.	68	V _{DD}	-	Power supply for DAC.
29	FILO	0	Output of filter for master PLL.(Slave = Digital PLL)	69	LPWM	0	Outputs PWM for L-ch. (positive Phase)
30	FILI	1	Inputs to filter for master PLL.	70	NLPWM	0	Outputs PWM for L-ch. (negative Phase)
31	PCO	0	Outputs of charge pump for master PLL.	71	AV _{DD2}	-	Power supply for L-ch PWM driver.
32	V _{DD}	-	Power supply for digital.(+5V)	72	AV _{DD3}	-	Power supply for X'tal.
33	AV _{SS1}	-	Power supply for analog.(0V)	73	XTAI	1	Inputs X'tal oscillation inpt (33.8688MHz).
34	CLTV	1	VCO control voltage input for master PLL.	74	XTAO	1	Outputs X'tal oscillation outpt (33.8688MHz).
35	AV _{DD1}	-	Power supply for analog.(+5V)	75	AV _{SS3}	-	GND.
36	RF	1	EFM signal input.	76	AV _{SS2}	-	GND.
37	BIAS	1	Inputs constant current for asymmetry correction circuit.	77	NRPWM	0	Outputs PWM for R-ch. (negative Phase)
38	ASYI	1	Inputs comparator voltage for asymmetry correction circuit.	78	RPWM	0	Outputs PWM for R-ch. (positive Phase)
39	ASYO	0	EFM fill swing output("L" = V _{SS} , "H" = V _{DD})	79	DTS2	1	Normal used state: "L".
40	ASYE	1	"L" : OFF of asymmetry correction. "H" : ON of asymmetry correction.	80	DTS3	1	Normal used state: "L".

IC BLOCK DIAGRAM & DESCRIPTION

IC104 CXD2518Q (DIGITAL SIGNAL PROCESSOR)



IC BLOCK DIAGRAM & DESCRIPTION

IC261 M38184MA-174FP (MICROPROCESSOR)

No.	PIN NAME	I/O	DESCRIPTION	POWER (OFF)	No.	PIN NAME	I/O	DESCRIPTION	POWER (OFF)
1	P_POWER	I	PUSH POWER SWITCH(L = OFF, H = ON)		48	P-CON		POWER CONTROL (L = OFF, H = ON)	L
2	ST	I	TUNER ST/SELECTION		49	MUTE1	O	AUDIO MUTE 1 (L = OFF, H = ON)	M
3	SELOUT0	O	SELECTION 0	H	50	MUTE2	O	AUDIO MUTE 2 (L = OFF, H = ON)	M
4	SELOUT1	O	SELECTION 1	H	51	V-MOTOR	I	AMP. VOLUME MOTOR (L = DOWN, M = STOP, H = UP)	
5	SELOUT2	O	SELECTION 2	H	52	NC			L
6	SELOUT3	O	SELECTION 3	H	53	MIC-IN	O	MIC YES/NO (L = NO, H = YES)	L
7	G-REV-SW	I	DECK B REVERSE UN-RECORD SENSOR		54	NC			
8	CD-CLK	O	CD IC104 CLK/SQCK	L	55	SUR-SP	O	SURROUNDSPEAKER SELECT (H = ON, L = OFF)	L
9	CD-DATA	O	CD IC104 DATA	L	56	NC			L
10	SIN	I	CD IC104 SQSO		57	G11	O	FL DIGIT 11	
11	G-FWD-SW	I	DECK B FORWARD UN-RECORD SENSOR		58	G10	O	FL DIGIT 10	
12	B-PACK-SW	I	DECK B PACK SWITCH		59	G9	O	FL DIGIT 9	
13	B-FR-SW	I	DECK B FF/REW SWITCH		60	G8	O	FL DIGIT 8	
14	B-PLAY-SW	I	DECK B PLAY SWITCH		61	G7	O	FL DIGIT 7	
15	MOTOR	O	TAPE MOTOR (L = OFF, H = ON)	L	62	G6	O	FL DIGIT 6	
16	TAPE-HI	O	TAPE HI-SPEED DUBBING (L = Hi, H = NORMAL)	L	63	G5	O	FL DIGIT 5	
17	A-PLY-PL	O	DECK A PLAY PLUNGER (L = OFF, H = ON)	L	64	G4	O	FL DIGIT 4	
18	A-FR-PL		DECK A FF/REW PLUNGER (L = OFF, H = ON)	L	65	G3	O	FL DIGIT 3	
19	B-PLY-PL	O	DECK B PLAY PLUNGER (L = OFF, H = ON)	L	66	G2	O	FL DIGIT 2	
20	B-FR-PL	O	DECK B FF/REW PLUNGER (L = OFF, H = ON)	L	67	G1	O	FL DIGIT 1	
21	SCLK	O	SIREAL CLOCK	L	68	NC			
22	SOUT	O	SIREAL DATA	L	69	NC			
23	NC			L	70	NC			
24	NC			L	71	S1	O	FL SEGMENT 1	
25	T-MOTOR	O	CD TRAY MOTOR (L = CLOSE, M = STOP, H = OPEN)	M	72	S6	O	FL SEGMENT 6	
26	NC			L	73	S3	O	FL SEGMENT 3	
27	NC			L	74	S2	O	FL SEGMENT 2	
28	NC			L	75	S7	O	FL SEGMENT 7	
29	XTAL	O	CD DSP LATCH	L	76	S5	O	FL SEGMENT 5	
30	NC			L	77	S10	O	FL SEGMENT 10	
31	SENS	I	CD SENS		78	S8	O	FL SEGMENT 8	
32	SCOR	I	CD SCOR DETECTOR		79	S4	O	FL SEGMENT 4	
33	IR	I	REMOTE CONTROL		80	S9	O	FL SEGMENT 9	
34	V-CHK		VOLTAGE CHECK,FAILURE		81	FUNC-0	O	FUNCTION CD LED CONTROL御 (L = OFF, H = ON)	
35	RESET		SYSTEM RESET		82	REC	O	DECK REC LED CONTROL (L = OFF, H = ON)	
36	XCIN				83	DECK-B	O	DECK B LED CONTROL (L = OFF, H = ON)	
37	XCOUT				84	DECK-A	O	DECK A LED CONTROL (L = OFF, H = ON)	
38	XIN		CLOCK, 4.19MHz		85	STANDBY	O	STANBY LED CONTROL (L = OFF, H = ON)	
39	XOUT		CLOCK, 4.19MHz		86	A-PACK-SW	I	DECK A PACK SWITCH	L
40	VSS		GROUND		87	A-FR-SW	I	DECK A FF/REW SWITCH	L
41	XRES		CD POWER CONTROL (H = OFF, M = DSP RESET, L = ON)	H	88	A-PLAY-SW	I	DECK A PLAY SWITCH	L
42	NC			L	89	VEE		FL POWER (-)	
43	FUNC-3	O	FUNCTION LINE LED CONTROL (L = OFF, H = ON)	L	90	A-REEL	I	DECK A REEL PULSE	
44	FUNC-2	O	FUNCTION TUNER LED CONTROL (L = OFF, H = ON)	L	91	VCC		POWER (+)	
45	FUNC-1	O	FUNCTION TAPE LED CONTROL (L = OFF, H = ON)	L	92	B-REEL	I	DECK B REEL PULSE	
46	TUN-CE	O	TUNER IC245 CE	L	93	AVSS		GROUND	
47	EX-CE1	O	AMP/TAPE DECK CE	L	94	VREF		REFERENCE VOLTAGE	
					95	KEY2	I	KEY INPUT 14KEY	
					96	KEY1	I	KEY INPUT 14KEY	
					97	KEY0	I	KEY INPUT 14KEY	
					98	CD-SW2	I	CD LOAD/UNLOAD SWITCH,	L
					99	CD-SW1	I	CD OPEN/ CLOSE SWITCH	L
					100	CD-SW0	I	CD LIMIT SWITCH, FOK	

IC & TRANSISTOR VOLTAGES

• CD SECTION

IC101 CXA1782BQ

(V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PLAY	2.6	2.5	2.5	2.5	2.5	2.7	2.5	2.9	2.5	2.5	0.8	2.5	2.5	2.5	2.5
STOP	2.6	2.6	2.5	2.5	2.5	2.5	2.5	2.9	2.5	2.5	0.8	2.5	2.5	2.5	2.5
Pin No.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
PLAY	2.5	1.2	5.0	5.0	5.0	4.9	4.8	0	5.0	5.0	0.6	0.7	1.5	2.4	2.5
STOP	2.5	1.2	5.0	5.0	5.0	4.9	4.8	0	5.0	0	2.2	4.3	3.1	1.2	2.5
Pin No.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
PLAY	3.5	2.5	3.8	0.2	2.5	2.5	2.4	2.3	2.5	2.2	0	2.5	2.5	2.5	2.5
STOP	1.0	3.5	0.8	0	2.2	2.2	2.5	2.5	2.1	3.4	0	2.5	2.5	2.5	2.5
Pin No.	46	47	48												
PLAY	2.5	2.5	2.5												
STOP	2.5	2.5	2.5												

IC102 BA6398FP

(V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PLAY	4.2	4.2	2.5	2.5	8.2	5.0	4.8	0	2.5	2.4	4.6	4.1	0	2.4	2.5
STOP	4.2	0	2.5	2.5	9.3	5.0	4.8	0	2.5	2.5	4.6	4.6	0	9.0	2.5
Pin No.	16	17	18	19	20	21	22	23	24	25	26	27	28		
PLAY	2.5	4.2	4.4	2.5	2.5	9.2	9.2	2.5	2.5	2.5	4.2	4.2	0		
STOP	2.5	4.6	4.6	2.5	2.5	9.2	9.2	2.5	2.5	0	4.6	4.6	0		

IC104 CXD2518

(V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PLAY	0	0	5.0	0	4.7	0	5.0	4.8	4.7	4.8	4.8	0	5.0	0	3.3
STOP	0	3.4	5.0	0	4.9	0	0	4.8	4.8	4.8	4.8	0	5.0	0	5.0
Pin No.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
PLAY	5.0	5.0	5.0	5.0	0	0	0.5	5.0	5.0	2.6	0	5.0	0	2.5	2.5
STOP	5.0	5.0	5.0	0	0	0	5.0	0	0	2.5	0	0	0	2.5	2.5
Pin No.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
PLAY	2.5	5.0	0	2.5	5.0	2.7	0.8	2.5	2.5	5.0	2.5	2.5	2.5	2.5	2.5
STOP	2.5	5.0	0	2.5	5.0	2.7	0.8	2.5	2.5	5.0	2.5	2.5	2.5	2.7	2.7
Pin No.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
PLAY	2.0	2.4	0	5.0	1.7	5.0	2.5	1.7	0	5.0	4.5	0	0	2.6	1.7
STOP	2.0	2.4	5.0	5.0	1.7	0	2.5	0	5.0	0	4.3	3.6	0	2.6	2.1
Pin No.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
PLAY	1.7	0	0	2.5	0	0	0	0	2.5	2.5	5.0	2.5	2.5	2.5	0
STOP	2.1	2.1	2.1	2.5	4.8	4.8	0	5.0	2.5	2.5	5.0	5.0	2.5	2.5	0
Pin No.	76	77	78	79	80										
PLAY	0	2.5	2.5	0	0										
STOP	0	2.5	2.5	0	0										

IC106 NJM4558D

(V)

Pin No.	1	2	3	4	5	6	7	8							
PLAY	Fluc	Fluc	Fluc	0	Fluc	Fluc	Fluc	11.5							
STOP	Fluc	Fluc	Fluc	0	Fluc	Fluc	Fluc	11.5							

IC132 LB1641

(V)

Pin No.	1	2	3	4	5	6	7	8	9	10					
STOP	0	0.5	0.8	0.8	5.0	1.8	11.7	11.7	0.7	0.5					
OPEN	0	4.1	5.5	4.1	5.0	0	11.7	11.7	0.7	0					
CLOSE	0	0	0.8	4.1	0	4.4	11.7	11.7	4.1	4.1					

Fluc : Fluctuation

IC & TRANSISTOR VOLTAGES

PIN	Q1101			Q1102			Q1201			Q1202			Q1211			Q1321			Q1371		
	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E
PLAY	4.5	1.8	3.7	5.0	5.0	4.2	9.7	5.0	9.1	5.0	1.2	4.7	0	0	4.6	0	0	0.6	5.0	4.9	1.8
STOP	1.4	1.3	0	5.0	1.3	5.0	9.1	5.0	7.8	5.0	4.9	0.7	0	4.4	0	0	0	0.6	5.0	4.9	1.8

• FRONT SECTION

IC261 M38184

(V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PLAY	0	2.8	2.8	2.8	2.8	2.8	4.9	4.8	0	0	4.8	4.8	4.8	4.8	0
STOP	0	2.8	2.8	2.8	2.8	2.8	4.9	3.4	0	0	4.8	4.8	4.8	4.8	0
Pin No.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
PLAY	4.7	0	0	0	0	4.7	4.7	0	0	0	0	0	0	4.7	0
STOP	4.7	0	0	0	0	4.7	4.7	0	0	0	0	0	0	0	0
Pin No.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
PLAY	0	0	4.8	4.5	4.9	0	4.7	2.0	2.2	0	0	0	0	0	0
STOP	0	0	4.8	4.5	4.9	0	4.7	2.0	2.2	0	4.6	0	0	0	0
Pin No.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
PLAY	4.9	4.7	4.7	0	0	2.0	0	0	0	0	0	Fluc	Fluc	Fluc	Fluc
STOP	4.9	4.7	4.7	0	4.6	2.0	0	0	0	0	0	Fluc	Fluc	Fluc	Fluc
Pin No.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
PLAY	Fluc	Fluc	Fluc	Fluc	Fluc	Fluc	Fluc	Fluc	-25	-25	-25	Fluc	Fluc	Fluc	Fluc
STOP	Fluc	Fluc	Fluc	Fluc	Fluc	Fluc	Fluc	Fluc	-25	-25	-25	Fluc	Fluc	Fluc	Fluc
Pin No.	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
PLAY	Fluc	Fluc	Fluc	Fluc	Fluc	4.7	0	0	0	0	4.9	4.9	4.9	-25	4.9
STOP	Fluc	Fluc	Fluc	Fluc	Fluc	4.7	0	0	0	0	4.9	4.9	4.9	-25	4.9
Pin No.	91	92	93	94	95	96	97	98	99	100					
PLAY	4.9	0	0	4.9	4.9	4.9	4.9	0	0	3.6					
STOP	4.9	0	0	4.9	4.9	4.9	4.9	0	0	3.6					

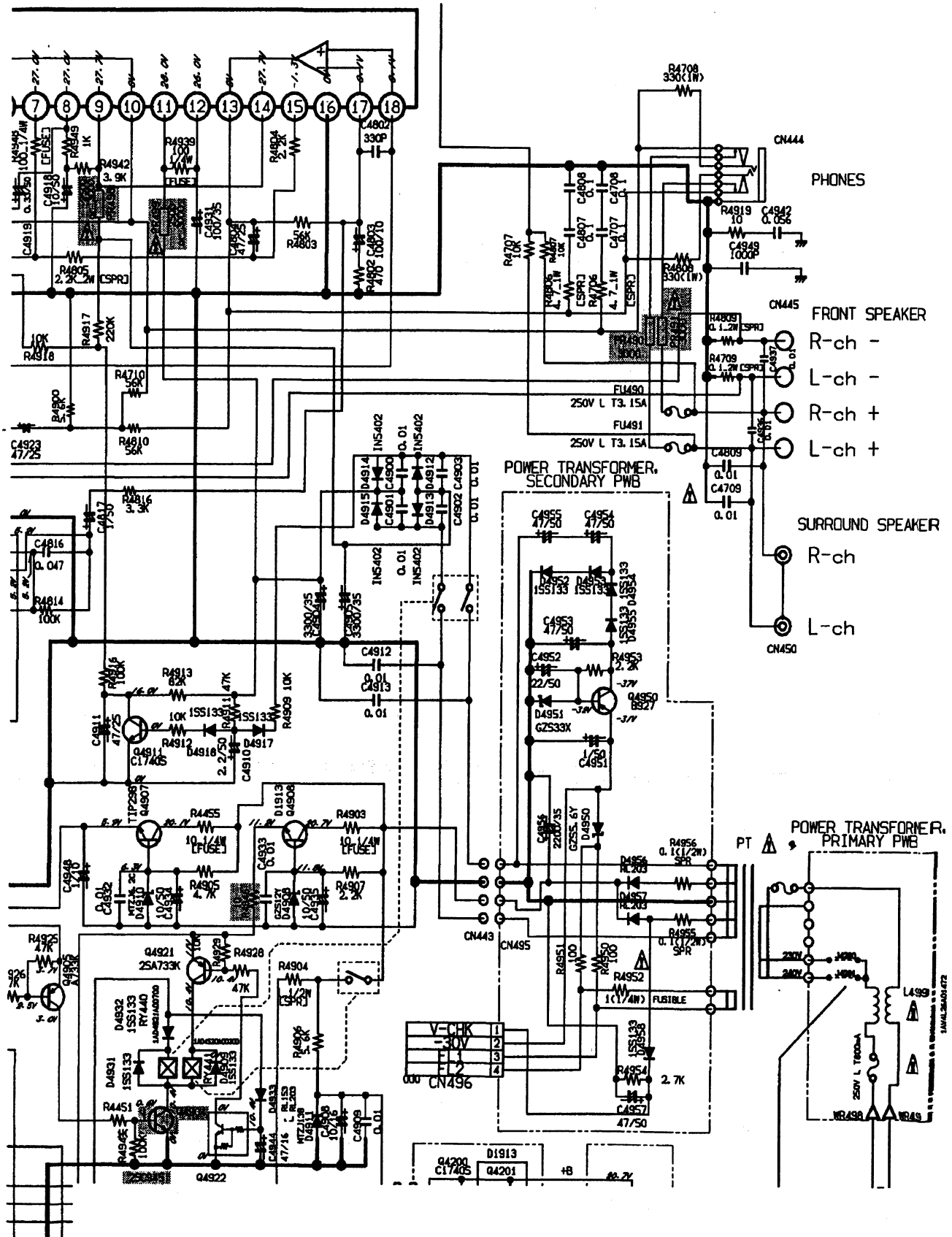
(V)

PIN	Q2661			Q2662			Q2663			Q2664			Q2665			Q2666		
	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E
PLAY	0	3.6	0	0	10.2	0	0	10.2	0	0	10.2	0	0	4.4	0	0	4.4	0
STOP	0	3.6	0	0	10.2	0	0	10.2	0	0	10.2	0	0	4.4	0	0	4.4	0
PIN	Q2667			Q2668			Q2671			Q2672			Q2673			Q3111		
	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E
PLAY	0	4.4	0	0	4.4	0	0	4.8	0	4.0	4.5	4.6	9.6	4.0	4.6	11.5	0	11.5
STOP	0	4.4	0	0	4.4	0	0	4.8	0	4.0	0	4.6	9.6	4.0	4.6	11.5	0	11.5
PIN	Q3112			Q3113			Q3114			Q3121			Q3122			Q3123		
	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E
PLAY	11.5	0	11.5	0	11.5	0	0	11.5	0	0	0	0	11.5	0	11.5	0	11.5	0
STOP	11.5	0	11.5	0	11.5	0	0	11.5	0	0	0	0	11.5	0	11.5	0	11.5	0
PIN	Q3124			Q3131			Q3132			Q3133			Q3134					
	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E			
PLAY	0	11.5	0	11.5	0	11.5	11.5	0	11.5	0	11.5	0	0	11.5	0			
STOP	0	11.5	0	11.5	0	11.5	11.5	0	11.5	0	11.5	0	0	11.5	0			

SANYO

SANYO Electric Co., Ltd.
Osaka, Japan

SCHEMATIC DIAGRAM (AMP.)



SANYO

Notice

SANYO

☐ CORRECTION	☒ PRODUCTION CHANGE
☐ SERVICE FLASH	☐ ADD INFORMATION
☐	☐

FILE NO.

Please add this notice to the Service Manual listed below.

Category : Mini Component System

Date : Feb. 1998

Model : DC-F180,180U

Destination : XE, UK

Reference No. : SM580675

Issue Number : 2

The reason of change.

A : Misprint

B : Quality Reliabilities

C : Standardization

D : Design

E :

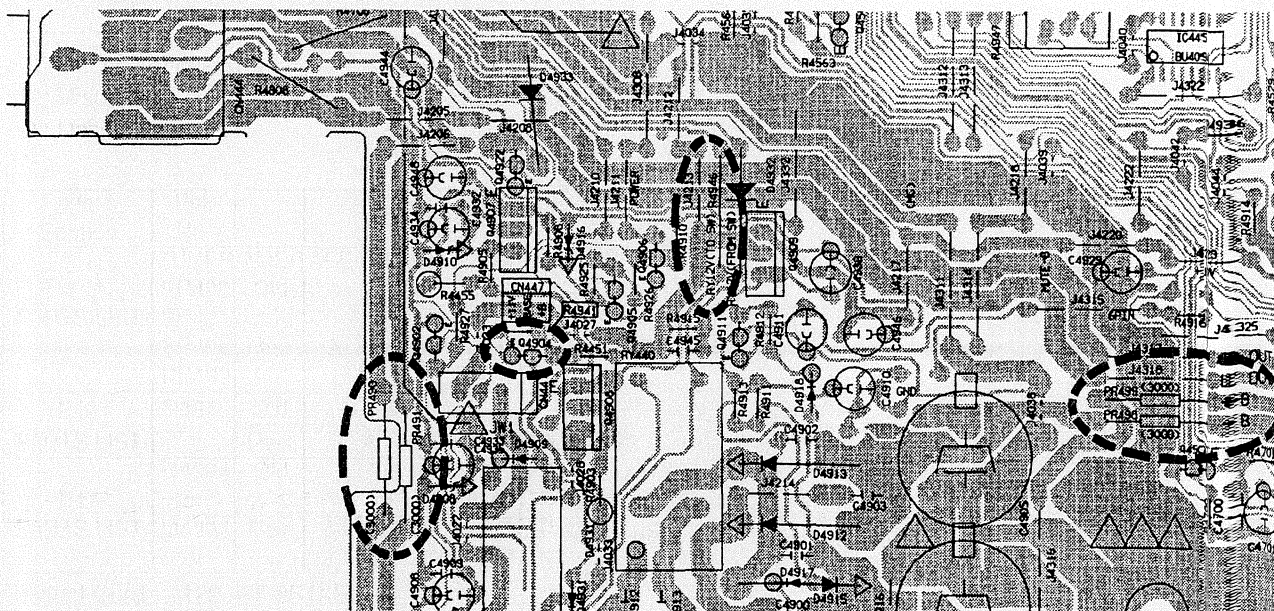
F :

G :

Page & Section	Ref. No.		Part No.	Description	Q'ty	Interchangeability	Reason
P15-17 PARTS LIST	TUNER/AMP/TAPE DECK P.W.BOARD ASSY						
	PR490	Old	---				B
	PR491	New	Δ 645 021 3595	PROTECTOR, 3A 125V	4		
	PR498 PR499						
P17 PARTS LIST	R4946	Old	---				B
		New	Δ 401 012 3447	RESISTOR 10 J- 1/4W	1		
P17 PARTS LIST	Q4904	Old	405 011 8609	TR 2SC1740S	1		
	or	New	405 011 8500	TR 2SC1740R			B
	Q4904		Δ 405 020 7412	TR 2SC945P	1		
	or		Δ 405 020 7214	TR 2SC945K			

Product Cord : 129 485 05 (XE)
129 486 04 (UK)

WIRING DIAGRAM (AMP & TAPE DECK)



REFERENCE No. SM580675-Q2

Notice

SANYO

- | | |
|--|--|
| ☒ CORRECTION | ☐ PRODUCTION CHANGE |
| ☐ SERVICE FLASH | ☐ ADD INFORMATION |
| ☐ | ☐ |

FILE NO.

Please add this notice to the Service Manual listed below.

Category : Mini Component System

Date : May. 1996

Model : DC-F180/DC-F180U

Destination : XE/U.K

Reference No. : SM580675

Issue Number : 1

The reason of change.

A : Misprint

B : Quality Reliabilities

C : Standardization

D : Design

E :

F :

G :

Page & Section	Ref. No.		Part No.	Description	Q'ty	Interchangeability	Reason
P15 PARTS LIST	72	Old	614 016 8079	TRANSFORMER,POWER (T001)	1		A
	72	New	645 016 8079	TRANSFORMER,POWER (T001)	1		

Prod. Cord : 129 485 05 (XE)
129 486 04 (UK)

SANYO Electric Co., Ltd.
Osaka, Japan

May/96/2700 KM

Printed in Japan.

REFERENCE No. SM580675-1